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Dr. R. N. Saksena, D. Litt., *(Editor-in-Chief)*
Dr. A. L. Srivastava, D. Litt.

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CONTENTS

PAGE

1. Myth of the Bounty of Our Land Resources. By D. S. CHAUHAN 1
2. The Simon Commission and India. By LAL BAHADUR 13
3. Historical and Cultural Geography of the Ganga Valley in Etah District, U. P. By T. R. SHARMA 25
4. Culture—Its Aesthetic and Theoretic Basis. By B. G. TIWARI 49
5. Economic Planning in China. By M. L. SETH 57
6. Philosophy, Religion and Science. By RAM NATH SHARMA ... 87
7. Franz Kafka and the Failure of Human Communication. By ANN BENSON 95
8. Life Insurance Corporation of India : Problems and Prospects. By S. P. SHARMA 103
9. Development of Caste Consciousness in Indian Children from 4 to 10. By S. D. SINGH, K. SINGH and Y. SINGH ... 109

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AGRA UNIVERSITY JOURNAL OF RESEARCH

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Editor-in-Chief

AGRA UNIVERSITY
JOURNAL OF RESEARCH

Vol. VIII, Part I **Letters** **January 1960**

MYTH OF THE BOUNTY OF OUR LAND RESOURCES

D. S. Chauhan, M. A., Ph. D., D. Sc.

Institute of Social Sciences, Agra University, Agra.

There is a section of thinkers, even amongst experts, which believes that India's land resources are plentiful; we have huge cultivated area and very extensive areas of culturable land are lying waste which can be brought under cultivation; this can ease the pressure of population and can likewise solve the food problem. There are several estimates of this culturable waste, the most optimistic being 150 million acres. This is a very complacent view of things. It gives an exaggerated account of land resource potential, and in planning it leads to a shift of emphasis on wrong points. Therefore, a more realistic assessment is necessary.

Our Land Resource Position in the World

Resource concept is meaningful in relation to man, and hence it is better to analyse land per capita than to discuss in terms of total area. The total geographical area per capita in India comes to 2.25 acres or 225 cents. This includes lots of areas (of mountains, hills, plateaus and some even in plains) which are unusable. On the basis of the Pearson and Harper Formula (*i. e.*, after writing off 95% of mountains, 75% of hills, 25% of plateaus and 5% of plains) only 151 cents per capita is left which can be termed as topographically *usable.* Whole of this land is not fit for agriculture since it includes some desert and sandy wastes of Rajasthan and marshy areas of Kutch. Excluding this type of area only 140 cents per capita is left which should be considered as topographically usable. Whole of this area cannot be considered really arable since a significant portion of it is under habitation (villages, towns and cities) and means of transport, etc. Besides, some soils are below the minimum degree of agricultural suitability. After making an allowance for all these only 97 cents per capita is left which can be considered as *arable.* Since there is no difference between arable and agricultural land in India (because there is little land under permanent grasses and pastures in our country) this can be treated as *agricultural.* This shows that not even 1 acre of land per capita is available for cultivation, or for food and other agricultural production. A comparison with the world view, with that in some selected countries, and that in the ten population divisions of the world is being provided in the following table:—

Table No. 1

Land Area per Capita (in cents)

	Total land area	Agricultural area		Forests and wood lands	Other land area
		Arable land (including fallow and orchards).	Permanent meadows and pastures		
India	225	97	...	26	102
World	1354	126	225	413	590
Selected Countries					
China	503	48	103	45	307
U. S. S. R.	3,045	287	158	1,172	1,428
U. S. A.	1,264	302	439	414	109
Japan	109	18	2	74	15
Indonesia	640	37	...	406	197
Pakistan	318	68	...	10	240
U. K.	119	37	60	8	14
Brazil	3,973	89	622	1,858	1,404
Italy	156	82	27	32	15
France	322	124	71	65	62
The Population Division of the World:					
1. Europe	307	92	60	79	76
2. U. S. S. R.	3,045	287	158	1,172	1,429
3. East Asia	427	43	83	53	248
4. South Asia	676	64	2	385	221
5. South Central Asia	239	87	...	25	127
6. South West Asia	1,984	132	203	114	1,535
7. Africa	3,797	233	723	1,146	1,695
8. North America	2,757	329	465	968	995
9. South and Central America	3,113	129	648	1,309	991
10. Oceania	16,379	362	7,045	1,457	7,515

Compiled from the Census of India, 1951, Vol. I, India, Part I-B, Table No. 3.0, p. 73.

Figures in the above table giving a comparative view show that (even in quantitative terms) we are not happily placed in the world. Taking the world average we find that our total area per capita is only 17% in comparison to that in the world as a whole, and our arable land per capita is about 77% of that of the world average. Besides, taking the 'permanent meadows and pastures', 'forests and woodlands' and 'other lands' into consideration it is found that we have nothing in the first category as against 225 cents per capita in the world, 26 as against 413 cents per capita in the second category, and 102 as against 590 cents per capita in the third category. It comes to 0.0%, 6.3% and 17.3% of the world average per head in the three categories respectively.

This leaves no ground for a belief that our land resources are plentiful (both in absolute and relative terms). However, in comparison to Europe and East and South-East Asia we are a bit better only in regard to cultivated area. In respect of other land classes our position is not better even amongst them.

TREND AND DISTRIBUTION OF THE NET AREA SOWN

Figures expressing land-man ratio relate to a point of time. With the passing of time population changes, and changes in the cultivated area likewise occur. In the assessment of land resources (or land resource potential) a study of trend is meaningful.

During the six decades from 1891 to 1951 the net area sown per capita has declined from 109 cents to 84 cents; and by the middle of the current decade it further declined to 77 cents. With the present rate of population increase (between 1.5 and 2% per year) and without corresponding expansion of cultivation it is likely to go down still further. This shows that at least the immediate future is not bright.

The average figure of the net area sown per capita in India gives only an overall view. Some more interesting points are revealed by considering the components of the net area sown and the regional distribution of it. This is being presented in the following table:—

Table No. 2

Sub-Regions	Per Capita net area sown (cents)	Components of the net area sown per capita. (cents)			
		Unirrigated single crop.	Unirrigated double crop.	Irrigated single crop.	Irrigated double crop.
1	2	3	4	5	6
1.1 Western Himalayan	63	33	20	9	1
1.2 Eastern Himalayan	59	38	9	12	...
2.1 Lower Gangetic Plains	51	23	14	14	...
2.2 Upper Gangetic Plains	61	29	13	17	2
2.3 Trans Gangetic Plains	95	45	14	35	1
3.1 North West Hills	142	129	9	4	...
3.2 North Central Hills	129	108	14	6	1
3.3 North East Plateau	89	63	13	13	...
3.4 North Deccan	157	122	2	8	1
3.5 South Deccan	114				
4.1 Gujrat Kathiawar	115	107	4	4	...
4.2 Malabar-Konkan	31	24	3	3	1
5.1 North Madras & Orissa Coastal.	57	23	11	21	2
5.2 South Madras	44	24	3	13	4
India	77	54	9	13	1
%	100.0	70.1	11.7	16.9	1.3

Based on average of 5 years preceding 1951. Deduced from Census of India 1951, Vol. I, India Part I-B, table No. 1.5 p. 43.

Of the net area sown 70.1% is under unirrigated single crops, 11.7% is under unirrigated double crops, 16.9% is under irrigated single crops and 1.3% is under irrigated double crops. It further shows 87% under single cropping, and only 13% under double cropping; and 81.8% being unirrigated and 18.2% of the net area sown being irrigated. In absolute terms this pattern shows a very low level of agriculture; and its evolution under a very heavy pressure of population (specially during the last four decades) shows that limitations have been unsurmountable: population has been pressing quite hard, and expansion of net area sown (or of cultivation) was frought with real and great difficulties.

The regional distribution shows that in four out of the five natural regions, *i. e.*, the northern plains region, the two coastal plains regions, and the Himalayan mountain region the net area sown per capita is much below the average, and it is only in the plateau region that the situation is better than the national average. This pattern has been determined by topographical, soil and climatic conditions on the one hand, and regional distribution of population on the other. However, by far the major area and the major section of our population being under conditions of so great a land scarcity (or scarcity of cultivated land) further shakes off a lot of complacency about our land resources.

POSSIBILITIES OF EXTENSION OF CULTIVATION

Analysis of the possibilities of extension of cultivation relates to the area which is put under land classification as 'culturable waste'. The recent estimates are more realistic than the previous ones; and it is estimated to be about 57 million acres. The total area of land which is termed as 'other uncultivated land excluding fallow land' is not fit for growing crops. Some of it can be used for grazing or for groves and trees. They are also agricultural uses. But in popular sense of the term 'extension of cultivation' that should not be treated as suitable or fit for. We shall try to analyse the situation both from a broader point of view as well as from a narrower or 'strict cultivation' point of view. The following table shows the total land per capita, the usable land per capita (according to Pearson and Harper Formula)* and the % of the usable to total land area in different sub-regions.

---

* Estimate of the usable area in our country on the basis of the Pearson & Harper Formula gives an exaggerated view. For a detailed treatment of its unsuitability of application in India and the difficulties involved in it a reference may be made to the thesis on Land Utilization, Agra University, Agra, 1959, by D. S. Chauhan.

Table No. 3

Sub-Regions	Total land per capita (acres)	Usable land per capita (acres)	%of Col. 3 to Col. 2
1	2	3	4
1.1 Western Himalayan	5.60	.83	14.8
1.2 Eastern Himalayan	5.42	2.24	41.3
2.1 Lower Gangetic Plains	.77	.73	94.8
2.2 Upper Gangetic Plains	.94	.89	94.6
2.3 Trans Gangetic Plains	1.93	1.38	71.5
3.1 North West Hills	3.94	2.76	70.0
3.2 North Central Hills	3.89	2.75	70.7
3.3 North East Plateau	3.33	2.15	64.5
3.4 North Deccan	2.60	1.78	68.4
3.5 South Deccan	2.59	1.83	70.6
4.1 Gujrat Kathiawar	2.83	2.07	73.1
4.2 Malabar Konkan	1.00	.54	54.0
5.1 North Madras and Orissa Coastal	1.39	1.12	80.5
5.2 South Madras	1.15	.87	75.6
India	2.25	1.40	62.2

Of the total land area 60.2% is topographically usable. If from this we deduct desert and marsh hardly 60% will be left. In view of the present level of science and technology this is the limit upto which agriculture in general (including pastures and groves and tree lands) can be extended. Therefore, the total figure of 81 million acres (total geographical area of the country) for a population of 36 millions (now about 40 millions) gives a very false picture of land resource potential. Hardly 60% of the total area should be considered arable; and agriculture in general can at the most be extended upto 58%, and cultivation or crop production in popular sense upto 50%.

(Compiled and calculated from Census of India 1951, Vol. I, India Part I-B, Table No. 10, pp. 17-21).

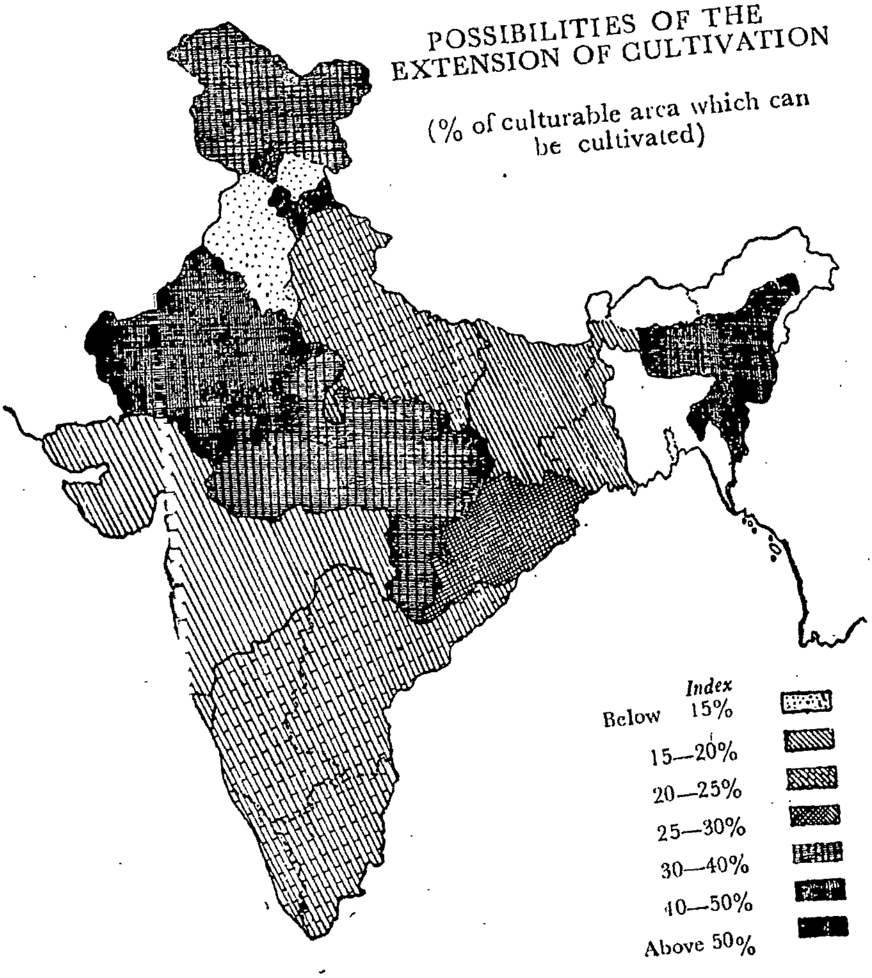
The extent of utilization at present and the chances of further extension are shown in the following table which gives the % of the net area sown to culturable area, % of the cultivated area to culturable area and the % of the culturable area which can further be brought under agriculture:

Table No. 4

States and Union Territory	% of net area sown to culturable area	% of cultivated area to culturable area	% of culturable area which can be cultivated
1	2	3	4
Andhra Pradesh	65.1	76.1	23.9
Assam	51.5	57.9	42.1
Bihar	68.4	82.6	17.4
Bombay	78.0	81.8	18.2
Kerala	73.8	75.8	24.2
Madhya Pradesh	60.5	64.7	35.3
Madras	64.6	74.8	25.2
Mysore	69.4	75.4	24.6
Orissa	61.5	70.1	29.9
Punjab	77.7	87.6	12.4
Rajasthan	42.5	50.9	49.1
Uttar Pradesh	77.4	78.1	21.9
West Bengal	81.1	82.1	17.9
Jammu and Kashmir	66.4	72.8	27.2
Delhi	79.1	84.0	16.0
Himanchal Pradesh	38.2	40.5	59.5
Manipur	65.7	65.7	34.3
Tripura	46.4	50.3	49.7
Andaman & Nicobar Islands	42.8	42.8	57.2
Total Union Territory	46.7	49.5	50.5
Total India	66.3	72.6	27.4

Culturable area=classified area—(Forests+Not available for cultivation).
Cultivated Area=Net area sown+current fallow.

Calculated from the Agricultural Statistics of Reorganized States, Directorate of Economics and Statistics, Ministry of Food and Agriculture, Govt. of India, 1956, Table No. 2.1



POSSIBILITIES OF THE EXTENSION OF CULTIVATION

(% of culturable area which can be cultivated)

On the whole the % of net area sown to culturable area is 66.3 (or about 2/3), and the % of the cultivated area to culturable area is 72.6. Therefore, about a quarter of the culturable area still seems to be available for the extension of agriculture in its wider sense.

In regard to different States the chances are very limited in Punjab, West Bengal, Bombay, Bihar and Delhi. On the other hand, greater chances are in Rajasthan, Assam, Madhya Pradesh and Himanchal Pradesh; Uttar Pradesh, Andhra, Kerala, Madras and Mysore stand in between where the maximum potentiality is between 20-25% of the culturable area.

However, it should be noted that the whole of it is not fit for cereal cultivation. Secondly, lot of it is infested with 'Kans' and Weeds, and has further limitations of irrigation, soil and topography. It is estimated that only about 10 million acres can easily be brought under cultivation That comes to only 3.2% of the existing net area sown. Bringing the other portion under agriculture will require extraordinary efforts.

OTHER LIMITING FACTORS

(i) The material fixture or the quantitative view of our land resources does not give a correct indication of the potentiality. In this consideration two important points have to be taken into account: (a) The resource concept is meaningful only in relation to the capacity of man to utilise it. Therefore, with advancement in science and technology the land resource potential increases. (b) With the increase in population it declines relatively. The relationship between absolute increase and relative decline depends on the degree of variation in the two sets of factors. However, in view of the current situation our land resources per capita show a decline.

(ii) There is deterioration in our land resources. Productive capacity and the average productivity of the cultivated area shows a decline*; fertility is not being restored; extensive deforestation has taken place; ravines are extending; floods seem to become more frequent and more damaging; there are evidences of the increase of aridity, salinity and alkalinity in quite extensive areas. The cumulative effect of all these things is depletion of land resources and deterioration in the conditions of human habitation.

(iii) Indian Agriculture is a gamble in the monsoon; and frequent crop failure on account of various types of agricultural hazards is quite a prominent characteristic of it. The following table shows the frequency of crop failures (to the extent of famine conditions) which every region has experienced as a result of failure of rainfall:—

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*D. S. Chauhan, *Declining Productivity of Our Land,* Agra University Journal of Research (Letters), Vol. VII, Part I, Jan. 1959. pp. 1-12.

Table No. 5

Periods of Successive Years of Deficient Rainfall

Rainfall Divisions	No. of Yrs. of Deficient rainfall during 60 yrs' period (1891-1950).	No. of periods of 2 or more successive yrs. of deficient rainfall.	No. of periods of 3 or more successive yrs. of deficient rainfall.
1	2	3	4
Assam	5	...	...
Bengal	12	2	...
Orissa	11	3	...
Chhota Nagpur	11	2	1
Bihar	12	1	...
Uttar Pradesh East	17	6	...
Uttar Pradesh West	18	2	1
Punjab East and North	27	6	3
Rajputana West	26	8	2
Rajputana East	21	4	...
Gujrat	17	2	1
C. I. West	16	2	1
C. I. East	21	6	2
Berar	18	5	1
M. P. West	10	...	...
M. P. East	10	...	...
Konkan	12	1	1
Bombay Deccan	14	3	1
Hydrabad North	25	7	3
Hydrabad South	26	8	1
Mysore	18	1	...
Malabar	14	3	1
Madras South-East	23	5	2
Madras Deccan	26	4	3
Madras Coast North	10	...	...

This shows the risky nature of our land resources in maintaining population. One set-back eats into the farm prosperity of several years. And even in the more suitable landscape like plains the peasantry has to remain vigilant constantly, and with a sufficient degree of hard work can maintain itself, and that too from hand to mouth generally.

Year of deficiency in this means the one in which rainfall was below the normal by 11% or more.

Calculated from Census of India 1951, Vol. 1 India, Part I-B—Reports and Appendices Table No. 1.1 page 27.

Conclusions

The overall conclusion is that though the net area sown appears to be quite huge (313 mill. acres) in terms of per head of population it comes to 3/4 of an acre. And in view of the low average production (lower crop yields) it can afford a very low level of living. The low levels of agriculture and of agricultural life make one inclined to feel pessimistic about the land resource position. This is from a static point of view. Even from a dynamic point of view there are no indications for feeling complacent about it. The possibilities of bringing fresh land under cultivation are also very limited. This is partly because the area of culturable waste land which can easily be brought under cultivation is very limited (hardly 10 million acres), and partly because the capacity of extension of cultivation in terms of the potential and the actual application of science and technology by farmers in fields and even the government is limited in specific time during which population remains pressing hard continuously. Besides, the depletion of land resources under a heavy pressure of population is rendering the land resource position more and more precarious. These things make land scarcity as one of the most dominant feature of rural or agricultural life. On the other hand, it places serious limitations on agricultural prosperity over vast areas and for a huge section of our population.

In spite of frequent crop failures due to floods and droughts the landscape in river valleys and plains is more congenial and suitable for prosperous life than in mountainous regions or deserts and semi-desert areas or in plateaus.

Report on India's Food Crisis and Steps to Meet it by the Agricultural Production Team of the Ford Foundation (Ministry of Food and Agr., Govt. of India, 1959), has recently sounded an optimistic note about it. Since opinions of this team seem to carry much weight with the Ministry of food and Agr. and the Planning Commission (as is clear from the proposed policy and targets for food and agriculture in the Third Plan), I for one feel inclined to sound a note of realism and caution in the approach towards the problem of land resources. The danger is that the idea of plenty and of optimism may lead to a change in our basic approach from a situation of scarcity to that of plenty; and secondly, it may lead to a relexation of effort on population control. Both these things will be wrong in social and economic planning at present.

THE SIMON COMMISSION AND INDIA

LAL BAHADUR, M. A. (HIST. AND POL. SC.), LL. B., Ph. D., D. Litt.
Principal, D. A. V. College, Bulandshahr (India).

The hasty formation of the Simon Commission in 1927 was the result of many factors. Section 84 A of the Government of India Act, 1919 laid down that a Commission be appointed at the expiration of ten years after its passage. The word 'within' was substituted for 'at the expiration of'[1] by the Government of India (Statutory Commission) Act, 1927.[2] This sort of acceleration of the appointment of the Commisson of Inquiry was due largely to the Swarajist activities in Indian Legislatures. They must have powerfully influenced the House of Commons to expedite the process of inquiry in India. In any other alternative view of the case, the cutting down of the period of ten years, as originally provided in the Government of India Act, 1919, would otherwise remain unaccounted for.

Keith opined that the situation in India was aggravated by the cleverness of the Congress in sponsoring Youth Movement which appealed to the excitable and half-educated young men with irresistible force.[3] It was, however, rightly pointed out that delay hindered national development in India. "If" said Snell, "haste is bad, as it may well be, it should not be forgotten that entirely senseless procrastination has in it an element of danger, which should not be overlooked on this occasion."[4] He realised further that the Government had not pulled their full weight in encouraging the people of India along the line of self-government. "The educational system in India", said he, "is entirely unsatisfactory, the agricultural conditions are deplorable, the Indianisation of services is far too slow and the reform of the Indian constitution is, we think, unduly delayed."[5]

PERSONNEL

The Commission was constituted under the chairmanship of Sir John Allsebrook Simon under a Royal Warrant on November 26, 1927. It comprised, besides the Chairman, seven Englishmen[6], in whose knowledge and ability great trust and confidence could be reposed by the British Parliament.

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1. Section 84 A : (1)
2. Report of the Indian Statutory Commission, volume I—Survey; page, XVI.
3. A Constitutional History of India 1600-1935 by Arthur Berriedale Keith : p. 288.
4. Parliamentary Debates : Official Report, Fifth Series-Vol. 207; House of Commons Sixth Volume of Session, 1927 : pp. 1411—1412.
5. *Ibid* : p. 1412.
6. Harry Lawson Webster; Viscount Burnham; Donald Sterling Palner, Baron Strathcona and Mount Royal; Edward Cecil George Cadogan; Stephan Walsh; George Richard Lane Fox and Clement Richard Attlee.

On December 27, 1927, Stephen Walsh was substituted by Counsellor Vernon Hartshorn, owing to the former's resignation on account of ill-health.[7] The Commissioners were granted full power to call before them such persons as they would judge likely to afford them any information upon the subject of the Commission and to call for, have access to and examine all such books, documents, registers and records as might afford them the fullest information on the subject.[8] The British Parliament did not, of course, dictate to the Commission the procedure it would follow, but it was of opinion that its task in taking evidence would be greatly facilitated if it were to invite the Central Legislature of India to appoint a Joint Select Committee chosen from its elected and nominated unofficial members, which would draw up its views and proposals in writing and lay them before the Commission for examination in such manner as the latter might decide. This Committee might remain in being for any consultation which the Commission might desire at subsequent stages of the enquiry. The British Government also suggested that a similar procedure should be adopted with the Provincial Legislatures.[9] Full opportunity was to be given for Indian opinion of different schools to contribute its view to inquiry by the Commission.

VISITS TO INDIA (a) FIRST VISIT

The Commission paid two visits to India, the first lasting from the 3rd of February, 1928 to 31st of March, 1928 and the second from 11th October, 1928 to 13th April, 1929. The first act the Chairman of the Commission performed on arrival in India was to write a letter on February 6, 1928 to the Viceroy and therein he unfolded the scheme of a Joint Free Conference. The plan referred to in the chairman's letter to the Viceroy was that the two houses of the Central Legislature of India, should constitute a joint committee consisting conviniently of seven members and that each local Legislative Council should be asked to constitute a similar body.[10] These Committees of the Indian legislatures were to provide assistance to the Indian Statutory Commission. It was specifically mentioned that the Joint Conference were to commence their work only on the second visit of the Simon Commission. The commissioners received numerous deputations which laid their views before them. But they did not take any evidence in their first visit which was mainly devoted to attempting to master the elements of the situation, and to visiting more of the country districts, particularly in Madras presidency and the Punjab than could be possible on the second visit. "We", said the commissioners, "travelled in India about 7,000 miles on this preliminary visit."[11]

(b) SECOND VISIT

By the time of the re-arrival of the Commission, Committees on the lines indicated had already been formed in all provinces except Burma and C. P. The Legislature of Burma appointed a Committee of the type in December, 1928, but the Central Provinces did not constitute any. The cooperation of the Central Legislature in this direction was not unreserved and it decided to withhold support. But the Viceroy shortly before the return of the Commission had formed an Indian Central Committee composed of three elected members of the Council of State, one more member of the same body and five memebrs of the Legislative Assembly. The procedure adopted in each Governor's Province was one of registering evidence and hearing witnesses by the Joint Conference, comprising the statutory Commission, the Indian Central Committee and the Provincial Committee. Witnesses were examined and evidence was recorded in the presence of the press. Members and Ministers of Provincial Governments were also associated with the Joint Conference. Since evidence taken at Delhi concerned only the Central matters, the Joint Conference was composed of the statutory Commission and the Indian Central Committee.

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[7] Report of the Indian Statutory Commission, Volume I—survey: page, XV.

[8] *Ibid* : Page XIV.

[9] *Ibid* : Pages XVI & XVII.

[10] *Ibid* : Pages XVII & XVIII

[11] The Indian Statutory Commissi on Report, Vol. I—Survey : p. XIX

The work performed was tremendous and a number of places were visited. Evidence was taken on 75 days, in all, at Poona, Lahore, Karachi, Peshawar, Delhi, Lucknow, Patna, Shillong, Calcutta, Rangoon, Mandalay, Madras and Nagpur. They also visited many other areas besides these principal towns and did their utmost to make themselves familiar with various parts of India.[12] Shortly before their final departure, the Commissioners held three days' conference at Delhi and on this occasion all the eight Committees of provinces, the Indian Central Committee and the Statutory Commission sat together. Even when the Commission returned home, its work was not suspended and the Indian Central Committee was called to England, where the officials of the India Office, members of the Secretary of State's Council, the High Commissioner for India and a representative of the War Office were consulted. The Chairman of the Indian Statutory Commission sought permission of the Prime Minister for investigating and reporting on Indian States[13] because the constitutional development of India pre-supposed considerations of relations subsisting between British India and Indian States and J. Ramsay Macdonald gladly accorded this permission.[14]

Reception of the Commission

Lest the above survey should give an erroneous impression that the Commission had a plain sailing throughout its course of investigation of conditions and examination of evidence, it is necessary here to stop in order to have a stock-taking of its reception in the country. The Nationalist India, on the other hand, was unanimous in its condemnation of the White Commission.

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[12] Report of the Indian Staturory Commission, Vol. I: P. XXI

[13] Letter, 16th October, 1929 addressed to the Prime Minister, *vide* Report of the Indian Statutory Commission, Vol. I: pages XXII & XXIII.

[14] Letter, 25th October, 1929, *vide Ibid* : P. XXIV

So great was the agitation over their arrival that even the Commissioners were constrained to accept, "The purely British composition of our own body roused resentment in many quarters in India—resentment which we did everything in our power to allay, first by seeking the cooperation of Indian Committees (for whose aid we are deeply grateful) and later by suggesting the calling of a Representative Conference after this Report and the Report of the Indian Central Committee have been made and published."[15] Regarding the arrangement of their report and the data they examined, the Commissioners observed, "We have examined many schemes and suggestions. The material is abundant and, while it is true that we were denied the direct testimony of some important bodies of Indian opinion, we have had the fullest opportunity of studying the Report of the Committee appointed by the All Parties Conference, 1928 (Commonly called the 'Nehru Report'), and have not failed to give due attention to its contents, and to other still more recent expositions of contemporary Indian opinion."[16] Their lack of contact with representative bodies, including the Indian National Congress, not only handicapped the Statutory Commission in its first-hand grasp of political feelings in India, but it also demonstrated, in clear outlines, the degree of boycott the Commissioners experienced in this country.

The Swarajists' attitude to the Commission was exactly the same as that of the Congress. Nor could it be otherwise, for the Swaraj Party was intensely patriotic and had never severed its connection with its parent body. It always felt very strongly for the country and was prepared to do its utmost to redeem the lost honour of the motherland. The speeches of M. A. Ansari and Motilal Nehru made this abundantly clear. Delivering his presidential address at the Madras Congress of 1927, M. A. Ansari voiced the feelings of the people when he referred to the Statutory Commission in these words, "No sane or self-respecting Indian can ever admit the claim of Great Britain to be sole judge of the measure and time of India's political advance. We alone know our needs and requirements best and ours must be the decisive voice in the determination of our future."[17] Motilal Nehru, the President of the Calcutta Congress of 1928 observed, "The solemn promises of responsible government have found fulfilment in that colossal fraud, the Statutory Commission which is now careering along our streets, leaving bleeding heads and broken bones behind."[18] Answering the Viceroy's characterisation of demonstrations after the return of the Statutory Commission for its second visit to India, as 'unmannerly and offensive', he said "that such demonstrations must in their very nature be offensive to those against whom they are made, and it is hardly reasonable to expect drawing room manners from a hostile crowd."[19]

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15. Report of the Indian Statutory Commission. Vol. I: Page 4
16. *Ibid* : Page 8
17. Congress Presidential Addresses, Second Series, Published by G. A. Natesan & Co., Madras : P. 841
18. *Ibid* : PP. 856—857
19. *Ibid*

The Swarajists whole-heartedly joined in the Congress resolution boycotting the Simon Commission. It was moved by S. Srinivasa Iyengar and it emphasised that the only self-respecting course for India was to boycott the Commission at every stage and in every form.[20] They participated in mass demonstrations against the Commission and completely abstained themselves from giving evidence before it and fully non-co-operated with the White Commission. The Governor of Bombay, for example, like the Governors of other provinces, attempted to pursuade the Swarajists and other elected members of the Local Legislature to co-operate with it. "If I admit", said he, "that India and aspirations of India are misunderstood and are not fully realised by British Politicians, I ask myself how much more will they be misunderstood if the representatives of all three political parties in Britain, appointed with the full approval of the respective leaders and following of those parties, are handicapped in their work by a decision on the part of responsible politicians in India to have nothing to do with the work for which they have been appointed?"[21] His pursuasion was coupled with a threat that any action contemplated by a boycott of the Commission would retard the fulfilment of the natural aspirations of those, with whom he professed to be in full sympathy and towards whose patriotic ambitions he had endeavoured to give what encouragement lay in his power.[22] He also emphasised the desirability of cooperating, by means of the election of a Committee, with the Royal Commission which was to make recommendations as to the future Government of India.[23] J. Addyman became all the more out-spoken when he said, "The Report of this Commission will, in due course, be submitted to Parliament and from which we have every reason to hope will emerge a system of Government bringing happiness and contentment to the peoples of India."[24]

Small wonder, therefore, that in most of the provinces during the days of Swarajists' decline in Legislatures, Committees were constituted to act with the Commission. Notwithstanding this, the Swarajists or those who were in close alliance with them shortly before, successfully opposed the formation of such committees. Lajpat Rai made it plain in the Central Assembly that the scheme of the Statutory Commission would not be acceptable to that House, as he had no faith in the bonafides of the Government or of the people who had appointed that Commission.[25] Motilal Nehru made it absolutely plain that they took their stand upon the broad principle that Parliament and the British Public and the British Government had no shadow of a right to enforce a constitution upon them against their own will.[26] Madan Mohan Malaviya said that even before the resolution for the appointment of the Commission was moved in the House of Commons, he published an appeal not to exclude the Indians from it.[27] The fact was that the Swarajists and all those under their influence thought fit to boycott it. As a matter of fact, by the time the Commission came to India, the Swarajists had completely identified themselves with the Congress.

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[20] Report of the 42nd Indian National Congress, held at Madras, 1927 : P. 28.

[21] Bombay Legislative Council Debates, Vol. XXII—20th February to 19th March, 1928—His Excellency's Speech : P. 53.

[22] *Ibid* : Pages, 53 and 54.

[23] Bombay Legislative Council Debates, Vol. XXIII, 23rd July to 8th August, 1928 : P. 92.

[24] *Ibid* : P. 612

[25] The Legistlative Assembly Debates (Official Report) Vol I, 1st February to 7th March, 1928 : P. 383.

THE COMMISSIONERS' TOUR IN INDIA

The above survey of the Swarajist attitude towards the Simon Commission gives sufficient indication of the nature and degree of agitation that actually resulted from its visits to India. The opposition to the Commission had started even before its arrival in the country. B. Rajah Ram Pandhian informed Pandit Jawaharlal Nehru that he was arranging to adopt a complete *Hartal* on the 3rd of February, 1928 in all the important places in Ramnad District.[28] The Satara District Congress Committee passed a resolution in favour of the boycott of the Royal Commission, on November 20, 1927, as it felt that the Commission was totally inconsistent with the Principle of self-determination,[29] and a similar resolution was passed by the Town Congress Committee, Banaras.[30] In pursuance of the resolution of boycott, non-cooperation and demonstrations passed in the forty-second session of the Indian National Congress held at Madras on the 26th of December, 1927,[31] an All India *Hartal* was observed on February 3, 1928 as a mark of protest against the Simon Commission. A few instances of the nature of *Hartal* on this date will indicate the temper of the country against the White Commission. The Utkal Province observed it in almost all its important towns and villages-Cuttack, Balasore, Sambalpore, and Berhempur etc.[32] Two thousand copies of the manifesto signed by most of the leaders of the Dharwar District were distributed among the public explaining to them what the Simon Commission was and why it should boycott it.[33]

Bombay wore a deserted appearance when it landed. The Commissioners were greeted with black flags and "Simon go back". A monster meeting of

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26. *Ibid* : P. 443
27. *Ibid* : P. 481
28. MS. Letter, Feb. 28, 1927 By B.R.R. Pandhian, Secretary, District Congress Comimttee, Ramnand to Pt. Jawaharlal Nehru, Secretary, A.I.C.C., Allahabad: A.I.C.C. File No. 17, G-58 of 1928.
29. MS. Letter, December 19, 1927 by V. V. Athalye, Secretary, Satara District Congress Committee (Maharashtra) to the General Secretary, Indian National Congress, Madras : (Abobe File).
30. MS. Letter, December 7, 1927 by Kamla Pati to the General Secretary, A.I.C.C.: A.I.C.C. File No. 5, G—40 of 1928.
31. The Indian Review, January, 1918 : P. 51.
32. MS. Letter, Feb. 11, 1928 by Asstt. Secretary. Utkal Provincial Congress Committee : A.I.C.C. File No. 17, G—58 of 1928.
33. MS. letter, Feb. 4, 1928 by R. S. Golikiri, Secretary, Taluka Congress Committee Hubl -District Dharwar, Bombay; A.I.C.C. File No. 17, G-58 of 1928.

50,000 in Bombay attended by Moderate Leaders solemnly resolved to boycott it. In Madras the boycott demonstrations were marked by disorderly scenes in different parts of the city giving the police an excuse to open fire.[35] In spite of Simon's boast to the Associated Press Representative at Delhi on the 4th of February, 1928 that he had received about 300 telegrams of welcome,[36] the fact remains that wherever the Commission went, it was accorded the worst possible treatment by the public. On the 7th of February was issued the statement of Simon for the Joint Conference Scheme and the Party Leaders of the Assembly unanimously rejected the proposal. Matters reached their high-water mark on the same day when gagging orders were issued in Madras prohibiting meetings, demonstrations and propaganda for *hartal*, which were served on the members of the Boycott Propaganda Committee. When on the 19th, the Simon Commission reached Calcutta a monster public meeting held in Shradhanand Park declared the boycott of British goods as the first step to attain Swaraj.[37] On March 1, 1928, Calcutta witnessed 32 meetings in 32 wards of the city in order to preach the massage of boycott. On March 3, 1928 ten thousand ladies in a meeting at Calcutta took solemn vow to boycott the British cloth.[38] On March 22, 1928, the Madras District Congress Committee inaugurated campaign in favour of boycott of British goods as an answer to the Simon Commission.[39]

Though Jinnah refused to serve on the Board for propaganda for boycott of foreign goods,[40] there were patriots who were in agreement with the idea of setting up Central and Provincial Boards for the purpose.[41] Really speaking, all true lovers of the country were awfully busy with the boycott. Chandra Dhar Johri of Agra, for instance, could acknowledge a hundred Rupee cheque long after its receipt for the Hindustani Sewa Dal, only on account of being busy with the boycott.[42]

Nor did the Commission fare better on its second visit. J. Coatman painted a rosy picture for the British Government and turned his eyes against stern realities when he wrote, "By the beginning of 1928 the opposition to the Statutory Commission had reached its full strength and it was far from amounting to a complete boycott.[43] Of course, some response to the Commission was evinced by certain minority groups but beyond that the support to it was

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34. The Indian Quarterly Register P. 2 January-June, 1928; From Chronicle of Events.
35. *Ibid* : p. 3
36. *Ibid* :
37. *Ibid* : P. 4.
38. *Ibid* :
39. *Ibid* :
40. MS. Letter March 4, 1928 by M. A. Jinnah to Pt. Jawaharlal Nehru, General Secretary, A. I. C. C. File No. 27 of 1928.
41. MS. letter, April 13, 1928 by Govind Das, Raja Gokuldas palace, Jubbulpore, C. R. addressed as "Dear Sir" Above File.
42. MS. letter no. 25. November 30, 1928 by Chandra Dhar Johri, Bagh Muzaffar Khan, Agra addressed as "My dear Pandit ji", Above File.

extremely limited. Writing about the Simon Commission in Bihar, Dr. Rajendra Prasad told the truth equally well applicable to the whole of India when he observed that for some days even young children were heard crying here and there in streets, 'Simon go back'.[44]

The whole position was well summed up in the statement that the boycott of the Commission had continued and had been intensified during its second visit to India. Inspite of the tortuous manoeovres and tactics of the Chairman of the Commission and his attempts to carry on propaganda for himself and his colleaguess, and in spite of all manner of official pressure and duress, the boycott had stiffened and had demonstrated to the world that India would have nothing to do with the Commission.[45]

India's protest was well-nigh demonstrated and all this happened inspite of the restless oppression by the Government. It openly took recourse to repression and lathi-charge became a common feature throughout the country. The climax was reached at Lahore where Lajpat Rai, aged sixty four, standing by the road-side in front of demonstrators, was assaulted and beaten on the chest with a baton by an English officer.[45a] Mahatma Gandhi sent a wire of congratulation and enquiry to the Lala who promptly replied by stating that the assault on him was unprovoked and deliberate but there was no cause for anxiety[46]. Gandhiji well summed up the position when he wrote, "The boycott of the Simon Commission is a continuing sore for the Commission and the Government. Sir John Simon and his colleagues cannot be contemplating this boycott with equanimity. They have not the courage to acknowledge defeat. The boycott itself has been given additional momentum by the unprovoked assault on the Punjab Leaders.[47] It was also probable that the Lala's death was hastened by that cowardly attack. But inspite of this charge being made openly, an impartial enquiry was denied by the Government.[48] The boycott of the Simon Commission showed us "the fine courage of our men, specially the students, their serene coolness under the gratest provocation, their splendid strength against brutal lathi assaults with their own empty hands crossed on their gallant rescues of their comrades and leaders, in utter disregard of the injuries inflicted on them".[49]

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43. India in 1927-28 by J. Coatman, Director of Public Information, Government of India : P. 63.
44. Atmkatha by Dr. Rajendra Prasad; P. 303.
45. Report of the General Secretaries of the Congress for the year, 1928: P. 179.
45.(a) Mahatma : Life of Mohandas Karamchand Gandhi by D. G. Tendulkar, Vol. II: Pages 436—437.
46. Young India, November 8, 1928, vide S. Ganesan Collection, 1927—1928 ; P. 912
47, Young India, November 8, 1928, vide Ganesan Collection 1927-1928: Pages 913 and 914.
48. Report of the General Secretaries of the Congress for the year 1928: P. 180
49. Report of the Forty-Third Session of the Indian National Congress held in Calcutta in December, 1928: P. 42, From Motilal's Address.

Lucknow experienced several wanton and unprovoked police charges on unarmed and peaceful gatherings on the occasion of the visit of the Commission. But the citizens refused to be cowed down by these brutalities and increased their demonstrations. They even added a touch of humour to them and set the whole city laughing at the discomfiture of the authorities. During a party given by some Taluqdars to the Simon Commission, the Kaisarbagh was surrounded by thousands of police and no one who was suspected of being a boycotter was allowed to approach even the public roads near the Bagh. Inspite of these precautions, the harmony of the party was marred by the arrival from the skies of numerous black-kites and balloons bearing the legends, "Simon Go back", and "India for Indians" etc.[50] The events of Lucknow made it clear that the authorities in the United Provinces at least were modelling themselves on the old Punjab model and Haileyism was coming to mean much the same thing as O'Dwyerism.[51]

What happened at Lucknow, happened at many other places in the Uttar Pradesh. When the author was nearly twelve years of age, rumour well confirmed to be authentic, spread through Agra that a young man with patriotic sentiments wrapped his chest with a bandage of cloth written over with "Simon, go back" and kept it concealed under his closed-collar coat, gained his entry to the railway station, inspite of police guards and strict Government vigilance, whence the train carrying the Commissioners was passing and taking his position just in front of the Commissioners unbuttoned his coat and opened his chest to them. Varied and long was the story of the Comnissioners' tour and the attitude of the Swarajists and other nationalists in the country was marked by the spirit of relentless opposition to them. Liberals and the Congressmen, often came into conflict with the police and many were the regrettable incidents that attended the march of the Commission from place to place.[52] But nothing diminished the ardour of the patriots to defend India's self-respect.

THE CAUSES OF THE BOYCOTT

Let us analyse here the causes of the boycott of the Commission. A masterly account of its general boycott is embodied in "India and the Simon Report" by C. F. Andrews. He pointed out that Lord Birkenhead, the Secretary of State "instead of appointing a mixed commission on which Indians and the British should serve jointly under a British member of Parliament as Chairman, nominated a Commission of seven members drawn solely from the British race." [53] Apart from the political annoyance of this course, it was regarded as a racial insult to have deliberately ignored Indian representation on it as it was to decide the basis of the future constitution of India. It happen-

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50. Report of the General Secretaries of the Congress for the year 1928; P. 180.

51. *Ibid.*

52. India's Constitution at work by C. Y. Chintamani and M. R. Masani, Bombay & Calcutta, 1940; Pages 9 and 10.

53. Idnia and the Simon Commission by C. F. Andrews : P. 31.

ed that just at the time of the appointment of the Simon Commission race feeling was running very high in the East. To ride rough-shod over national sentiment and appoint a purely British Commission on a subject so vitally and intimately affecting India was surely asking for trouble. It was not for nothing that Lord Birkenhead's racial arrogances won for him the nickname of Lord Brokenhead in private conversation in this country.

The Indian sense of self-respect was further wounded because of the fact that for some years past it had been made a precedent that on every commission dealing with the affairs of India, Indians were generally represented. In the Lee Commission and the Skeen Commission this had already been done. The British plea that since there were so many mutually hostile sections in India that it was quite impossible to choose Indians without offending some of them, could only serve to irritate the sensitive minds in India.[54] Montagu's announcement of August 1917, undoubtedly stressed the claim of the British Government and the Government of India to judge the political advance of the country. But, by no interpretation, however far-fetched, could it exclude the Indian members of the British Government. In particular, Lord Sinha could easily be taken on the Commission, as "he had already been for many years a distinguished and honourable member of the British Parliament, sitting in the House of Lords." [55] He had distinguished himself for his integrity, devotion to duty and intellectual ability, both in India and England. He should have been an inevitable choice of the Government. In ignoring Indians as a class, Lord Bikenhead roused their political and racial susceptibilities and made a serious departure from a growing tradition.

Besides, India of 1927 and 1928 had, under the leadership of Gandhiji, gained in courage, strength and political consciousness. The mental set-up of the country was intolerant to a serious imposition but ignoring this spirit of the people, Lord Birkenhead constituted the Commission only out of the Englishmen. It was true that a mention of Joint Select Committee was made along with the announcement of the Statutory Commission and that Committees were actually constituted out of the Indian Legislatures, but they were all subordinate bodies to the Simon Commission. It, therefore, roused the deepest feelings of distrust against itself.

RECEPTION OF THE REPORT

Nor could its Report published in 1930 satisfy Indian aspirations. The first volume contained a survey of all matters which the Commission deemed necessary and, as such, dealt with the facts of the situation. It described the conditions of the problem, the existing constitutional structure, the working of the reformed constitution, the administrative system, the system of public finance and the growth of education and public opinion in India. This fact-finding Volume, though not generally averse in spirit to the prevailing sentiments in the country, over-emphasised certain aspects. For example, the anxiety and difficulties of Anglo-Indians,[56] the movement of women,[57] the condition of depressed classes and disabilities of untouchables[58] were unduly stressed.

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[54] India and the Simon Report by C. F. Andrews : Pages 32 and 33.

[55] *Ibid* : Page 35.

The second volume of the Report discussed the general principles of proposals, suggestions for constitutional changes and advance in Governors' Provinces, the North-West Frontier Province and other special areas and the centre, the constitutional problem in relation to the Defence of India, the future of Burma, the future relations of the Government with Indian States, Indian Finance, the future of the Services, the High Courts and the relations between Home and the Indian Governments. It was on the side of recommendations that the Report was most disappointing. It fell far short of the country's needs and expectations. It betrayed lack of understanding the young India which was rising up in a national upheaval. Gandhi's miraculous and magnetic personality, accompanied by the Swarajist zeal and activities, in and out of Legislatures, had exerted a profound influence on the thought and action of the people and had completely captured their imagination. In the opinion of C. F. Andrews "If only it had been possible for them (Commissioners) under the right guidance, to have travelled as private persons, meeting Mahatma Gandhi himself in an entirely informal manner in his own Ashram and sharing the atmosphere, in which its followers spend their lives, then their ideas about the future constitution of India would have been profoundly modified."[59]

Though the Commissioners professed to have come in contact with the nationalist point of view, through their perusal of the Nehru Report and the though the Indian Central Committee also laid special claims of getting ample opportunities of acquainting themselves with the sentiments of that group[60], the fact remains that the real India was left unrevealed to them. The proposal of federal structure for India, for example, was not in consonance with the national desire of the age. Harold J. Laski aptly said, "As a piece of analysis, its finely-meshed structure could hardly be bettered. Everything is there save an understanding of the Indian mind .....Gandhiji who has set half India aflame with new dreams is dismissed as an administrative incident of hich the significance is never seen. You cannot deal with the hopes of a people as though they were studies in logic."[61] It did not strike the British rulers that a political enquiry boycotted by the leading exponents of popular wishes could not serve its purpose.[62] Besides, Lord Birkenhead, the Conservative Secretary of State for India tried to terrify the immense Hindu population by the apprehension that the Commission was being got hold of by the Muslims and might present a report altogether destructive of the Hindu Position.[63] In the light of all this, it needs only a Sophist to convince us that the Report had been written 'in a spirit of genuine sympathy.'[64] Its publication frustrated the hopes of the Indian people and even public men of moderate views wanted to be assured that the report would not form the basis of discussion at the Round Table Conference, a preposition which the Government accepted.[65] If adopted by the Government, the Governor-General would have become more powerful than Shahjahan and more irresponsible than Shah Alam. The American conception of an irremovable and irresponsible Executive was transplanted in a country which had been craddled in the parliamentary system and nourished on English constitutionalism. It was not constitutional scheme but a jig-saw puzzle, and few Indians were capable of appreciating its Chinese mysteries.[66] Such a scheme was naturally unacceptable to Indians of every class and instead of allaying political discontent, aggravated the situation and intensified the demand for complete independence and severance.[67]

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[56] Indian Statutory Commission Report, Vol.† : Pages 44 and 45.

[57] *Ibid* : P. 50.

[58] *Ibid* : Pages 37 and 38.

[59] India and the Simon Report by C. F. Andrews : p. 78

[60] Indian Central Committee Supplementary notes by Abdullah Al Mamun Suhrawardy : p. 66

[61] India and the Simon Report p. 188 : Appendix VI.

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[62] The Constitution of Indian Republic by Anil Chandra Banerjee, Calcutta—12, 1950; p. 6;

[63] Letter to Lord Irwin, February, 1928 quoted by Anil Chandra Banerjee, M. A., Ph.D. in the Constitution of the Indian Republic.

[64] Report of the Indian Statutory Commission, Vol. II : p. 315

[65] New Constitution of India by Sudhir Kumar Lahiri and Benoyandra Nath Banerjee; p. 51 : Calcutta, 1936.

[66] The Indian Federation by Sir Shafaat Ahmed Khan, London, 1937 : p. 11

[67] Ibid ;

HISTORICAL & CULTURAL GEOGRAPHY OF THE GANGA VALLEY IN ETAH DISTRICT, U. P.

T. R. SHARMA, M. A., Ph. D.
Professor of Commerce, B. R. College, Agra.

The object of the present paper is to study the changes that have taken place in the physical environment of the Ganga Valley in the Etah district of U.P., on account of a change in the course of the river that took place about 400 years back, and also to study the consequent changes in the socio-economic life of the people of this area. The study covers broadly an area of about 500 sq. miles of the Ganga Tarai (an area lying between the old and the new courses of the Ganga) along with an adjoining area to the south of the high bank known as the 'Pahara'. However, attention has been focussed and detailed study has been made of a smaller area—the Nidhpur Pargana of Aliganj Tehsil, Etah district. With regard to period broad references are made to the distant past but detailed discussions are confined to conditions prevailing during the last 100 years.

THE MYTHOLOGICAL ORIGIN OF THE GANGA

Socio-economic activities of man are sometimes very powerfully influenced by the mythology handed down to the people of a particular region from generation to generation. It is on account of this fact that a brief narration of the mythological story about the origin of river Ganga has been considered essential before taking up a discussion of the historical Geography and Socio economic conditions in a small segment of the upper Ganga Valley.

The mythological story says that quite early in the history of the creation a Daitya King named Bali acquired control almost over the entire universe and thus deprived the gods and their King Indra of almost everything, even the necessaries of existence. The gods appealed to the Lord of the Universe to rescue them from the power of King Bali and to restore them to their original status and power. The Lord of the Universe was very much moved by the appeals of gods and decided to help them by appearing in the incarnation of Vaman (the Dwarf). Lord Vaman approached King Bali to grant Him land equal to His three strides for purposes of meditation. The King regarding Vaman as an ordinary dwarf granted his request. As soon as the King became bound by words to honour his promise Lord Vaman assumed the Virat Rupa (the Universal form) and measured the entire sub-terranean regions in the first stride, the entire earthly regions in the second and the entire heavenly regions in the third stride. When the Lord was taking the third stride the toe of His foot reached the abode of Lord Brahma (the creator of the Universe). Lord Brahma, in all reverence, took the holy water of his

Kamandal (jug), washed the toe thus turning the holy water into the holiest of all, and kept it with him.

After long long ages when King Sagar of the Surya Vansh (Solar dynasty) was ruling on the earth a very tragic event took place. King Sagar was performing Asvamedha Yagya (Horse-Sacrifice) and the sacrificial horse guarded by his sons was moving about. The horse was stolen by god Indra and hidden in the Ashram (hermitage) of Kapil Muni. The princes following the footsteps of the horse reached the place and began to scold the Muni as a thief. The sage Kapil looked up at the princes in anger and all of them were burnt to ashes immediately. Prince Anshuman, the grand-son of King Sagar beseeched the sage to tell him some way by which the souls of the princes could be retrieved from his curse. The sage told the prince that the souls of the dead princes could get salvation if somehow the holiest of waters resting in Brahma-Kamandal (the jug of Lord Brahma) forming the essence of mother Ganga could be brought down from the heavens to the earth to wash away the ashes of the dead princes.

King Sagar on hearing the sad-tale handed over the reigns of government to his grand-son Anshuman and retired to forest to pray and meditate to bring the mother Ganga on the earth for the benefit of the souls of his dead sons. Not only the old King Sagar but a number of his successors died praying and meditating but it was in the time of King Bhagirath that the mother Ganga was pleased to accede to his prayer to come down to the earth from her heavenly abode in Brahmaloka (the region of Lord Brahma). But she told Bhagirath that unless he could find some one to break her tremendous fall in all her glory she would pierce the earth and go down to the subterranean regions. Bhagirath then engaged himself in the prayer of Lord Shiva to withstand the fall of Ganga and save the earth from being pierced under the tremendous force of the fall. Lord Shiva granted his request but mother Ganga laughed at the folly of Shiva in accepting the impossible task of checking her break through to the subterranean region. But as Ganga on her release from Brahma-Kamandal began to descend in all her fury intent upon carrying Shiva along with her to the sub-terranean region, Lord Shiva spread the locks of his divine hair all over the Himalayas from his divine seat on Mount Kailash. Earth and heaven were badly shaken when Ganga descended in her fall from the heaven to the earth but to the surprise of all concerned she was entirely lost in the divine hair and could not find an outlet. Bhagirath again approached Shiva in prayerful meditation and he was pleased to collect his locks of hair in his hands and to squeeze out three drops of the holy divine water forming the Tridharas (three streams) of Ganga. Bhagirath drove on his chariot infront of the advancing swollen stream showing the path to the place where the ashes of his dead ancestors lay. The Ganga washing the ashes along rushed headlong to the ocean. The souls of the dead princes were freed from the curse of sage Kapil and ascended to heaven.

The inspiration derived from this mythological legend winds the clock work spring of the mental attitude of the devout Hindus throughout India and through the ages and since times immemorial in their millions they have wended their way either to immerse the bones and ashes of their dead or to take a dip in the holiest of the holy waters of the Ganga to seek salvation for their departed ones as well as for themselves. The force of the legend is tremendous even to the present day. Numerous Hindu shrines are dotted all along the Ganga throughout the Himalayan region and then all along its plain and delta stages holy places are to be found, the most important being Hardwar, Mukteshwar, Soron, Prayag, Kashi and Gangasagar. In their blind faith people continue to go to places which have been deserted by the Ganga for several centuries and the main stream is now running at a distance of several miles from them.

There seems to be some basis for the mythological legend. The Lord of the Universe is supposed to rest on a serpent like bed of waves in the ocean which washes His feet. Through the heat of the sun the waters of the ocean reach the upper region—the abode of Lord Brahma—in the form of vapour. This moisture is deposited on the high peaks of the Himalayas—the abode of Lord Shiva—not only in the form of rain but also in the form of perpetual snows, which form into glaciers to give rise to the three important streames—Bhagirathi, Alaknanda and Mandakini—to join into one to appear in the plains near Hardwar in the form of the river Ganga.

THE COURSE OF THE GANGA

After entering the plains at Hardwar, the Ganga flows southwards upto Bulandshahr district and as it enters Aligarh district (Western U. P.) it takes a south-easterly course, and continues to flow in that direction (with minor changes) upto Allahabad where it is joined by the river Jamuna. From this place it flows almost in the easterly direction through Eastern Uttar Pradesh and Bihar till it rounds the Raj Mahal hills and enters Bengal when it again turns south and joins the Bay of Bengal. The entire valley is one of the richest plains of the world traversed by numerous tributaries from the Himalayas in the north and the Vindhyas in the south.

The river is subject to frequent floods during the months of the summer monsoon but its course is sufficiently stable. But between the districts of Aligarh and Farrukhabad a change, of sufficient magnitude involving an area of about five hundred square miles, took place in the course of the river towards the later part of the reign of Emperor Akbar.

For centuries, almost since times immemorial the river Ganga flowed between the districts of Aligarh and Farrukhabad, just beneath the ancient towns of Soron, Patiali and Kampil. All available evidence shows that these three towns constituted the three strong points to the south of which the river Ganga never flowed. An examination of the course of the old bed of the river between Narora (the place from which the Lower Ganga Canal has been taken out) and Soron shows that the river developed two bulges to the south. The first near village Sankra was a small one and the second near Soron was rather big. Here the river cut the bank so deep that it reached Soron after flowing two or three miles due north in place of flowing east. Similar two or three bulges southwards were developed between Soron and Patiali and another two or three between Patiali and Kampil. The existence of these bulges made the course of the river very tortuou and winding. This position must have existed about five hundred to one thousand years ago.

All the three towns Soron, Patiali and Kampil were considered sacred by the Hindus and were the places of pilgrimage. According to the tradition the town of Soron is said to be very ancient. Hindus connect the town with the Shukar or Varah Avatar (Boar Incarnation) of Lord Vishnu and consequently call it Shukar Kshetra. The temple of Shri Varah ji still stands on the banks of Hari Ki Pairi (a part of the old bed of river Ganga). It is said that in the ancient days the town was the seat of the Government of Raja Venu Chakravarti and in the medieval period it was the capital of Raja Soma Dutta Solanki, the founder of the Solanki clan of Rajputs who still inhabit a large part of Etah district from Soron to Sirhpura. To the north of the town still there are to be found the ruins of an old fort, on which stands a small building locally called Sitaji Ki Rasoi (the Kitchen of Sitaji). This has been declared to be a protected monument under the Ancient Monument Preservation Act of the Government of India. To the west of the ruins of the fort is situated the famous cremation ground of the Hindus known as the Yoga Marga considered to be as sacred as the Manikarnika Ghat of Banaras associated with the name of Raja Harishchandra. Perhaps Ganga flowed at Soron from south to north first touching the bathing ghat at Hari ki Pairi where the temple of Varahji stands and then to the cremation ground Yoga Marga and finally touching the northern side of the fort it must have turned eastwards. Soron is also connected with the name of Shri Narhari Dasji the famous teacher of saint Tulsi Dasji, the author of Hindi Ramayan.

The mythical purpose which brought Ganga to earth from her heavenly abode still continues to attract Hindus by millions from all parts of India especially from entire Rajasthan and Madhya Bharat to immerse the ashes of their departed ones in the Hari Ki Pairi at Soron. The visit of people to Mathura is also considered incomplete unless they take a dip in Hari Ki Pairi at Soron also. The town has been deserted by the Ganga which flows to the north at Lahara at a distance of a few miles. But still the remnant of the Ganga at the Ghats called Hari Ki Pairi filled by canal water in the form of a tank still commands the same old reverence and is considered sacred by the devout Hindus. Ganga water in specially prepared flasks of glass and metal is carried home by almost all pilgrims from Rajasthan and Madhya Bharat.

Although Soron is said to have been the seat of some kings its role in the political sphere does not seem to have been of any great significance. But, on the other hand, its religious character continued to be of great importance without interruption even during the seven or eight centuries of Muslim rule.

The town of Patiali is also said to be very ancient. Its name is connected with the residence of Guru Dronacharya of Mahabharat fame. The town continued to command a very important place of strategic value upto the middle of the 19th century. It still contains the ruins of a fort which stood just on the bank of the river Ganga. A small corner wall made of local Kankarh still stands and is erroneously called 'Bhaksi' (prison cell) by the local people. It is said that this fort was built by Shahabuddin Ghori. Patiali happened to be a scene of important military engagements. In the middle of 18th century (1749) an important battle was fought near Patiali between Safdarjang Nawab Wazir and Ahmad Khan, the Nawab of Farrukhabad. After an interval of a century another important engagement took place between the Indian rebels and the forces of Colonel Seaton and Major Hudson in 1857. Later in 1858 General Kenny's forces took up a strategic position at Patiali commanding a wide front on the river Ganga. Earlier, when Etah came in the possession of the British Government (1801) Patiali was made the district Headquarters and residences for British officers were constructed in 1811.

According to the local traditions of Chauhan Rajputs of the locality Rao Ganesh of Mainpuri came to Patiali and established himself there. It is from this place that the Chauhans spread themselves in 27 villages from Patiali to Dhumri on the river Kali. The importance of Patiali seems to be mainly strategic and political. From the point of view of religion and faith this town attracted hundreds of people from the neighbouring areas on full moon days for a holy dip in the Ganga. On the occasion of Jeth-Dashehra several thousand people gathered at the place for the holy bath. From distances of 10 to 15 miles people brought their dead for cremation. But even after the withdrawal of Ganga from Patiali several miles to the east blind faith still attracts these masses to the bathing ghats (no pacca ghats are there) of Patiali where people try to bathe in the mudy pools of dirty water. There is some flow in the stream only during the rains, otherwise there is very little stagnant water, which has to be supplemented by canal water in the summer on the occasion of Jeth-Dashehra bathing festival falling in the month of May or June.

Coming to the third important town—Kampil on the banks of the Ganga in this region one has to make note of its great and undoubted antiquity. In days earlier than those of the epic Mahabharata the town is said to have been the seat of king Brahma Dutta. During the days of Mahabharata Kampil is mentioned as the capital of Southern Panchala where King Drupada, father of Draupadi, the queen of the Pandavas, ruled. It was perhaps here that the famous Swayamvara took place, in which Pandava Prince Arjun won fair Draupadi by showing his exceptional skill in the art of archery by piercing with an arrow the eye of a revolving fish placed high up, looking at its shadow in a pan of oil placed down below. At the time of its retreat Ganga left a number of pools (depressions in the bed) of water. One of them is still called Draupadi Kund (tank of Draupadi). People attracted by their blind faith in the holiness of the Ganga, still congregate at this place in large numbers to take bath in the muddy pools called Kundas (tanks). It is said that Mr. Sultan Alam Khan, the local M. L. A., who is also a deputy Minister in the Government of U. P. is trying to rennovate these tanks by getting them cleaned and deepened and by providing them with pucca ghats. There are a number of temples and bisrants. During the medieval period the scene of political activity had shifted to the town of Khor, (now Shamshabad) situated a few miles away to the east. Khor, being the stronghold of Rathor Rajputs, attracted numerous expeditions one after another by the Musalman rulers of Northern India. Ultimately it was subdued and renamed Shamshabad.

CHANGES IN THE COURSE OF THE GANGA IN ETAH DISTRICT

The object of going into the historical details of these towns is to show that as far as is known the Ganga flowed beneath the walls of these towns almost since times immemorial. But then began the retreat of the river towards the east away from these ancient towns perhaps in the 12th or the 13th century and the change was completed by the end of the 16th century. There is, however, no definite evidence available to fix the exact date of the change. Tradition asserts the changes in the river's course to have taken place some eight or nine hundred years ago, but according to some historians there is good reason for referring it to some period subsequent to the reign of the Mughal Emperor Akbar.

It seems possible that in the beginning the river began the eastward shift by slow erosion and the straightening of certain big and bulging loops. In this process deeper loops were cast off in the form of oxbow lakes. Between Sankra in the district of Aligarh and Azizabad in the district of Farrukhabad there are three such oxbow lakes existing upto the present day. The first is just near Pachalana from where the shift in the course begins ; the second one known as the Kale Ki Dhab just near Deori Prahladpur is situated a few miles to the south of the town of Soron. Here the river avoided a very big southward curve in its course and straightened the current sufficiently. The third lake known as the Bara Tal or Thane Ka Tal lies a few miles to the south-east of Patiali. Here also the river dropped off a very large southward curve in its course. By this process of slow change the river began to flow at some distance from the original bank. The adoption of this new channel must have taken a pretty long time through the process of slow erosion.

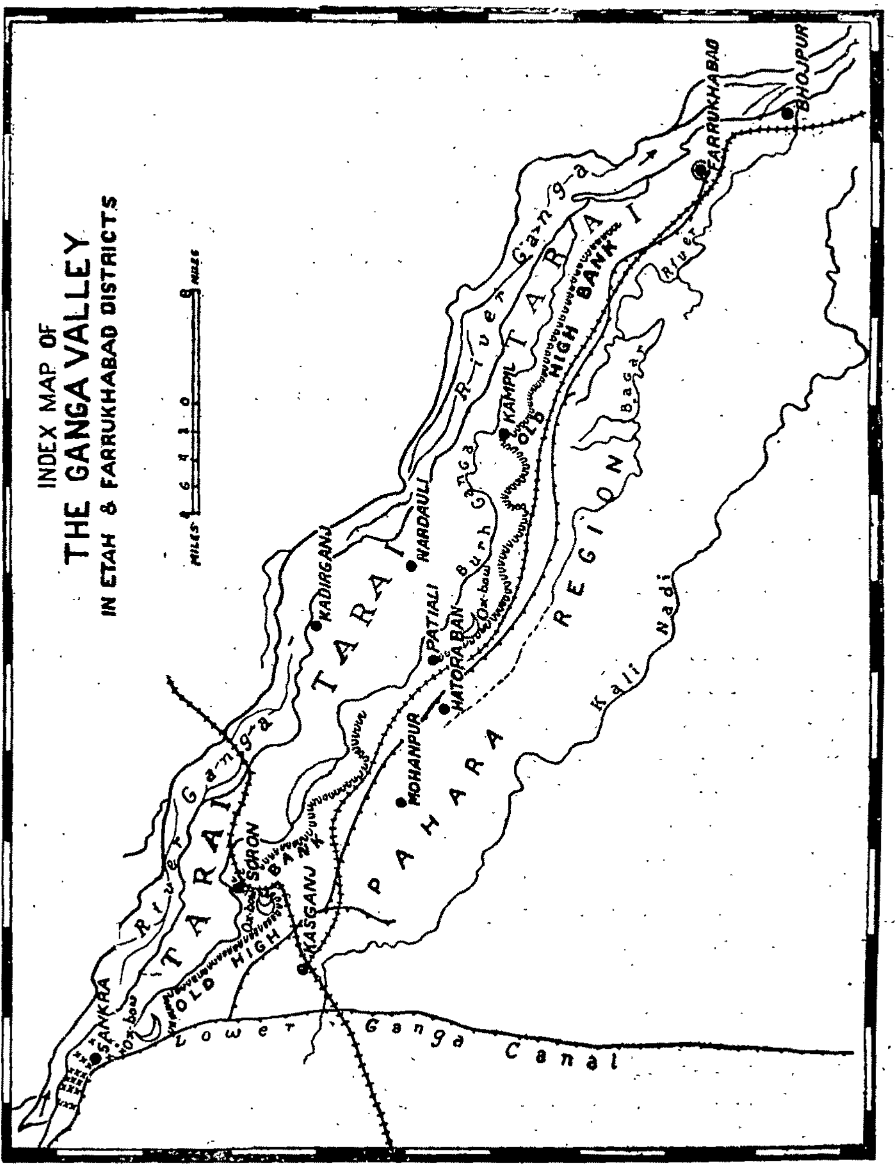
But then perhaps came a rapid and sudden change of a far reaching character. The river gave up its old bed entirely and from the neighbourhood of village Sankra in the district of Aligarh it began to flow in a new channel altogether. After flowing for a distance of about 60 to 70 miles the river rejoined the old course near Azizabad in the district of Farrukhabad. It is perhaps this sudden change of course which is said to have taken place subsequent to the reign of Akbar and the earliest slow retreat from the bank must have commenced eight or nine hundred years ago. These assumptions seem to be reasonable and it is on the basis of these assumptions only that we can reconcile the traditional and historical accounts of the change.

Upto a distance of a few miles the river retreated by a process of slow erosion but then the process of a sudden burst into a new channel enabled certain areas between the old and the new beds to escape the process of erosion. One such area lies to the east of Patiali comprising the villages of Raja, Rani Damar, Ranheti, Abdal etc. This observation is based entirely Rajola on local experience and tradition. There are certain tests by which local people differentiate between areas which have undergone the process of erosion and those which have escaped erosion. In uneroded areas well-building is easy. A pit with a diameter two or three feet bigger than the proposed diameter of the well is dug upto the water-level and then the brick structure is built up and is sunk downwards till it reaches a depth where it touches a layer of strong clay, through which a hole is bored to assure a good and clean water supply. Such a process is not possible in eroded areas. A much wider pit has to be dug because the walls of the pit give way and fall inside a number of times and then in the process of sinking the well a layer of strong clay is perhaps never reached and water comes from the sand with consequent choking of the well. Thus the construction of wells is difficult. A second test is that in uneroded areas suitable soil for preparing baked bricks is always found. In the eroded areas such soil is usually conspicuous by its absence.

CHARACTERISTIC FEATURES PRODUCED BY THE CHANGE

(i) *The Old High Bank*

This shift in the bed of the river Ganga in this region has produced four or five very well marked characteristic features. One of these features is the Old High Bank below which the river was flowing originally and on which are situated the three old towns of Soron, Patiali and Kampil besides dozens of villages of all sizes. This bank along with the region beyond is called Pahara. This bank has a mean height of about 20 feet above the lower river plain, rising occasionally to 30 or 40 feet and varying considerably in appearance at different places. Sometimes it descends with a


INDEX MAP OF
THE GANGA VALLEY
IN ETAH & FARRUKHABAD DISTRICTS
MILES 8 6 4 2 0 8 MILES
SANKRA
Ox-bow
OLD HIGH BANK
TARAI
River Ganga
SORON
KASGANJ
Lower Ganga Canal
PAHARA REGION
MOHANPUR
HATORA BAN
PATIALI
KADIRGANJ
HARDAULI
Burh Ganga
KAMPIL
Bagar
Kali Nadi
River
FARRUKHABAD
BHOJPUR

gentle slope to the lowlands into which it imperceptibly disappears, at others it rises abruptly like a wall or juts out into the plain like the bastion of some huge fort. To the south of Soron the Old High Bank looks very impressive on account of the very great contrast provided just below the bank by the oxbow lake of Deori Prahladpur formed by an old loop of the retreating Ganga. The lake is very picturesque and is full of golden lotus flowers. A little beyond the lake rises abruptly the Old High Bank called Bhagirath ki Chonpi (Bhagirath's embankment) by the local people. Local people's story says that this earthen bank was raised by King Bhagirath by bare hands in a matter of moments to prevent the Ganga from taking a wrong direction, while he rode infront of her showing the way to the place of his dead ancestors. Just near the bank and the lake the interested priests have brought into existence a small cave, called Bhagirath's cave, dug into the ordinary earth. The nature of the soil is such that this cave can never be accepted as some thing ancient. It has been put up simply to influence the simple minded orthodox pilgrims. The Old High Bank has been shown in our maps as a continuous line just to mark the western limit of the lower river plain. In fact, it is not continuous as in many places it disappears entirely.

(*ii*) *The New Current*

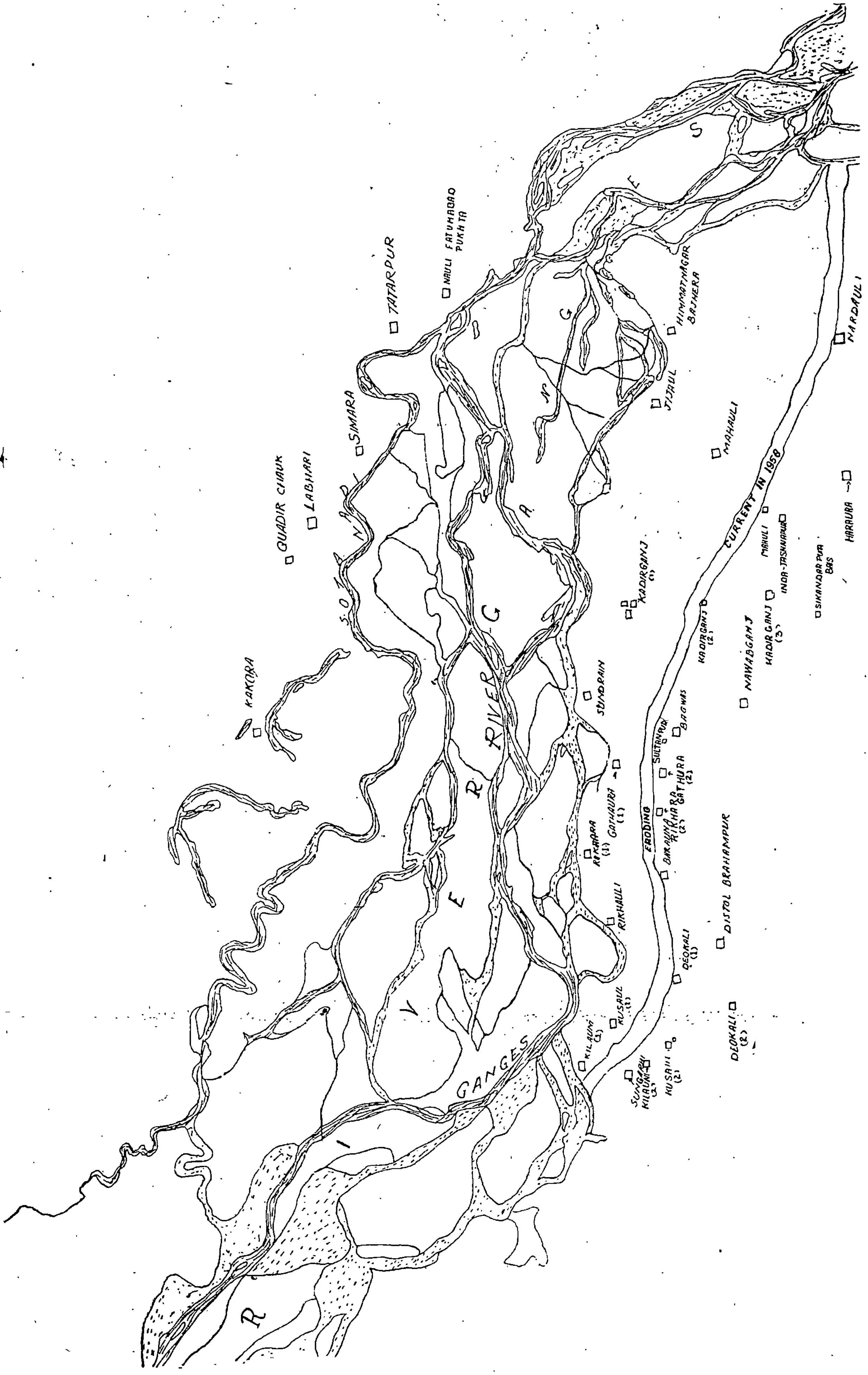
The second important feature is the new current of the Ganga itself flowing at a distance varying from 3 to 10 miles from the Old High Bank. The current is sufficiently stable but from rainy season to rainy season it shifts about in a belt of about four or five miles in width. Sometimes it spreads sand over a fertile area and at other times it deposits fertile silt over a sandy place. Besides villages of varying sizes the only important town which grew upon the bank of the new channel of the Ganga was Quadirganj. The town was founded by one Shujaat Khan after the name of one of his ancestors Quadirdad Khan. Shujaat Khan was sent to suppress the local Rajputs and after defeating them he established himself there and built up a fort. He himself was killed in the battle of Dori between Hafiz Rehmat Khan and the Nawab of Farrukhabad in the year 1749...The Tomb of Shujaat Khan was one of the notable buildings of the place. It also contained a tomb of Saint Reta Shah, a holy Muslim faquir respected equally by both Muslims and Hindus, who died in 1850. On the tomb of this saint an annual Urs was held in winter season which besides others was visited by a very unusually large number of muslim dancing girls. In 1939, when the town was destroyed by the Ganga for the first time, it contained a population of about 4,000 and had a police station, hospital, post office, veternary hospital and a cattle pound. As it shifted to new locations the town was washed off again and again.

EROSION BY THE NEW CURRENT

The new channel carved out by the river was much less tortuous than the old one but still there were some curves as they are always likely to be in the river courses. Perhaps one of the sharpest of such curves existed between the villages of Kusaul and Bahbalpur with its apex at Himmatnagar Bajhera. The maps given in this paper are based on the surveys carried out between 1920 and 1926. The area enclosed by this curve in the course of the river was last surveyed in 1921-22. Perhaps just after this the river started the process of straightening and reducing this curve. The first important village to be destroyed was Himmatnagar Bajhera lying at the apex. Since then the population of this village has been living in small clusters of hutments scattered in the Katri. In 1805 Raja Himmat Singh lived in this village. He was one of the important pro-British landlords of the area. After the destruction of this village the river extended the activity of erosion over an area about 12 miles in length. During the course of a few years by the year 1930 a large number of villages—Kilauni, Kusaul, Rikhauli, Rikhara, Gathaura, Sundarayan, Jijaul and Pansutia—covering an area of many square miles were destroyed. Khera Bhat was eroded in 1930, Mahauli in 1932, Quadirganj in 1939 and Deokali was destroyed in 1946-47. Barauna is still hanging on the bank, nearly half of it being destroyed. For several years the river was approaching towards Nardauli in its destructive march southwards and in the year 1958 the eroding current reached the outskirts of this village. The current is still active but Nardauli has so for escaped destruction. People try to put up earthen embankments to prevent further erosion. Some of the population of the eroded villages crossed over to the other bank and the rest continued to retreat before the ferocious current changing the sites of the villages. Majority of the villages are in their second location while Quadir ganj is in its third. The population of Sundarayan has got scattered up and the village has ceased to exist as such. In the rainy season of 1957, Rikhara, Gathaura and Quadirganj were again under attack by the river even in their second locations. It is on account of this pressure that Quadirganj has moved to a third location. The second location of Quadirganj was about one mile to the south of the first and the third about 6 furlongs to the south of the second. People moved to the 3rd location only in June 1957. Some erosion is taking place in the entire region but it is nowhere so well marked as between Kusaul and Nardauli. The movement of the river seems to be south towards the old bed.

(*iii*) *Emergence of the Riverine Plain of Tarai*

The third remarkable feature is the emergence of a new riverine plain locally called Tarai between the Old High Bank and the new current of the Ganga. It may be about 60 to 70 miles long and about 7 to 8 miles in width on an average varying from 3 (at the narrowest) to 10 (at the broadest) miles at different places. The total area of the Tarai is about 565 square miles. Of this total 399 square miles is in the Etah district and the remaining 166 miles in the Farrukhabad district. The plain is perhaps broadest between Quadirganj and Thana Dariaoganj having a maximum width of perhaps more


RIVER GANGES
SOT RIVER
RIVER GANGES
TATARPUR
NAULI FATUHABAD PUKHTA
SIMARA
QUADIR CHAUK
LABHARI
KAKORA
HIMMATNAGAR BAJHERA
TIJAUL
MAHAULI
NARDAULI
CURRENT IN 1958
KADIRGANJ (1)
KADIRGANJ (2)
KADIRGANJ (3)
MAHULI
INDA-TASHNAPUR
SIKANDARPUR BAS
HARAURA
NAWABGANJ
SUNDRAIN
SULTANPUR
BAGWAS
GATHAURA (1)
GATHURA (2)
RIKHARA (1)
RIKHARA (2)
BARAUNA
ERODING
DISTOL BRAHAMPUR
RIKHAULI
DEOKALI (1)
DEOKALI (2)
KUSAUL (1)
KUSAUL (2)
KILAUNI (1)
KILAUNI (2)
SUNGARHI

than 10 miles and is narrowest near Kampil where the width of the Tarai is hardly three miles; it may be somewhat less than that. In the Etah district it extends from Pargana Faizpur Badaria in Tahsil Kasganj to Pargana Azamnagar in Tehsil Aliganj. The Tarai Tract is continued in Tehsil Kaimganj of the district of Farrukhabad and the width of the strip nowhere exceeds seven miles.

(*iv*) *The Old Stream*

The fourth noticeable feature of the region is the thread like old stream of the Ganga lying in between the Old High Bank and the new current zigzaging in the Tarai Tract almost always nearer the Old High Bank than the new channel of the Ganga. In the maps it has been shown as a continuous stream for the sake of a better understanding of its location in the Tarai region, otherwise in most of the places it has ceased to be a river and exists only as a Nala (drainage cut) kept clean by the efforts of the Government. In the rainy season it begins to flow as a continuous stream and at many places ferry arrangements become a necessity. In the summer season only a few deeper portions carry stagnant water and the rest of the course is absolutely dry. Near Kampil the stream has become almost untraceable.

This stream is called Burhganga (old Ganga), its current is sluggish and its course tortuous, blocked in many places by sand-spills and weeds. In the district of Farrukhabad this stream flows in the old channel upto Gangpur, two and a half miles north of Kampil. From this point one channel which is the more modern of the two turns due north and runs into the Ganga; while the other and the older branch flows eastwards from a distance of about half a mile to two miles from the Old High Bank to join the main river Ganga near Azizabad six miles east of Shamshabad. Perhaps during the last few years the part near Kampil has entirely disappeared and the remaining part has begun to receive the flood waters of the main river Ganga during the rainy season.

(*v*) *The Pahara Region*

The fifth feature of the region is the higher plain called Pahara lying to the south of the Old High Bank. This plain runs all along the course of the Old High Bank of the river and really lies between the High Bank to the north and the river Kali to the South. It contains a half dead river called Bagar. This river will be discussed elsewhere in the latter part of this paper.

THE TARAI SOIL

The soil of the entire Tarai region can be said to be of excellent quality with a few exceptions here and there. The soils usually are of an alluvial character with quite a large admixture of vegetable matter. Even where the proportion of sand is high, they are soft to touch and resemble rather compost than natural earth. It is perhaps this high proportion of vegetable matter that enables them to grow rich crops. The most valuable of the Tarai soil is the rich soft loam found along the edge of the Ganga. Similar but less valuable soil is found along the edge of the Burhganga. Between the two the level is rather higher and the quality of soil deteriorates from north to south, being very sandy just above the Burhganga. South of this old stream there is always a considerable stretch of very poor soil usually consisting of wind blown sand. Big stretches of this type are found east of Soron. Nearer the Old High Bank the soil is again good. In the Tarai of the district of Farrukhabad the soil is everywhere alluvial consisting of a stratum of loam of varying thickness more or less intermixed with sand overlying a bed of white river sand.

VEGETATION AND WILD LIFE

With regard to natural vegetation it can be said that there are two broad belts of natural vegetation. One of them is called the 'Katri' running throughout the entire Tarai area. Katris are reed producing lands lying along the Ganga and Burhganga. Here and there are found clusters of Khajur palm but mainly the thick and long moonj grasses cover the Katri tracts. This is a very useful grass. The reed or Saintha is used for thatching frames, sirki is used for making rain covers for carts, covering of sirki is used for rope making and the long leaves are used for thatching. All these things form very important items of export from the Tarai region to the Pahara usually in return for fodder.

In the adjoining Pahara region ran a big dhak forest belt said to be about 16 miles in width. Various other types of trees like shisham, neem, babul etc., were also found intermixed with the dhak. In the month of March dhak forests presented a very glorious and pleasant sight with their profuse red flowers. It seemed as if the entire forest was on fire. Both the Katri of Tarai and dhak forest of Pahara constituted a very rich belt of natural vegetation.

This vegetation provided shelter to numerous wild animals. In the Tarai area the wild pig was quite common and was also found in the Pahara region, where herds of deer (usually black buck) roamed in large numbers. Herds of wild cattle also existed in a number of places. Other important wild animals were Nilgai (boselaphus Tragocamelus), hog-deer (cervus Porcenus), rabbits and percupine etc.

The land was extremely fertile; it was covered with rich natural vegetation; the population was rather thin and, therefore, the pattern of economy was agricultural-cum-pastoral. People, besides carrying on ordinary agriculture, tended large herds of cattle—mainly cows. In a single family of four or five, two hundred cows were not uncommon, a vast herd of several thousand cattle in a fair sized village like Badhaula in the Tarai or Hathora Ban on the Pahara was considered to be quite normal even upto the year 1857. The references in the Mahabharat to the seizure of vast herds of cattle of Raja Virat of Matsya in whose Kingdom the Pandavas were hiding themselves in their exile, by the invading Kaurava armies, and to the cattle-rearing profession of the Gopas of the Braj during the stay of Lord Krishna there, all affirm the existence of agricultural-cum-pastoral economy of the entire area from Hastinapur to Panchala. This type of economy with minor modifications persisted perhaps right upto 1850. There are no references to buffaloes. The real reason was that the cow was the most admirably suitable animal for the land containing rough pastures provided by long grasses like moonj. One or two men from each family were entrusted with the task of looking after the cattle. Sometimes the herds moved considerable distances away from the home village and did not return for several days. In the thick cover of vegetation sometimes the herds became invisible and the cow herds had to climb trees to see the swarms of birds flying with the herds to locate them. Cattle lived mainly by grazing and hardly ever were provided with any fodder at home. They were not tied but simply enclosed in big compounds. The supply of milk and butter under these conditions was plentiful.

Rich wild life of the region was a great menace to agriculture. Wild pigs were particulary harmful to sugarcane and deer and rabits to other crops. Farmers had to make strenuous efforts to protect wheat in the early stages of growth from the destructive activities of animals like rabbits. Near wheat-fields pits were dug and a solution of cow-dung and water was sprinkled on the young plants with long brushes of moonj grass to protect the tender plants against the inroads of the wild animals. Aherias caught the deer in snares and sold the venison, and the Rajputs hunted the wild pigs with the help of big nets called Khabars.

An European soldier named Lind perhaps of Swedish nationality moved through this region with the British forces in 1857. Lind and another writer Lundgren wrote accounts of their journey which are still available in their country. It is often reiterated in Lind's book and it pervades the whole book by Lundgren, how fertile, how luciously green and how rich India was. Both the writers describe in lovely detail the deep forests full of wonderful trees, the wide fertile plains producing harvest after harvest or swarming with herds of cattle. According to these writers the Indians lived in a paradise and seemed hardly aware of the wealth which was so generously spread allover this land. Their Ambassador writing in 1957, a century after, on the occasion of the centenary celebrations of the first war of Independence of 1857, seems to doubt the accuracy of these statements and poses certain questions. Were the writers just spinning a sailor's yarn ? Were they over-romanticizing every thing they saw for the benefit of readers who could never see it at all ? Or was India of a century ago really so much more fertile, so much less overpopulated and so much richer ? Perhaps this paper should provide an answer to these questions and put the doubts at rest.

HUMAN AND CATTLE LIFE

But after 1850 the population began to increase and the Katri in the Tarai and the dhak forests on the Pahara began to dwindle. Woods were cleared and the land was brought under the plough. With the loss of cover the wild life began to decrease and now-a-days it is a rare thing to come accross a wild pig or a herd of deer. Not only did the wild life decline but rather the domestic cow also began to fight a losing battle. She was a creature of the rough pasture not requiring much care in feeding. The reduction in rough pasture meant a reduction in the number of cows. They began to be replaced by buffaloes which could be fed at home not requiring extensive pastures. Buffaloes were also commercial cattle as they yielded more fat in the form of ghee to be sold in towns, where population was also increasing. The figures of cultivated area at the time of the first settlement in 1833 and the second settlement in 1873 in the Etah District show the speed at which the culturable land was being brought under the plough reducing the pastures proportionately.

Year	Area under cultivation	per cent increase
1833	5,45,027 Acres	...
1873	7,16,661 Acres	31·56

During these four decades the area under cultivation rose by nearly 32%. After the first world war the demand for land almost became a craze and as a result the area under cultivation in 1957 reached a high level of 7,72,713 acres which meant an increase of nearly 42% over the area under cultivation in 1833. These changes were mainly due to increase in population in the district under new conditions of law and order established under the British regime. The figures of population of district Etah are available only since 1872. The total population at this time was 8,29,118. Between 1872 and 1881 a very great calamity in the form of severe drought and devastating famine of 1877-78 affected the district and consequently the population in 1881 declined to 7,56,523. During the decade 1881-91 the district was the victim of almost an equally serious calamity of exactly the opposite nature. Between 1885 and 1889 there was excessive rainfall resulting in floods and water logging. Large numbers of people fled away from the water-logged area and the population in 1891 was reduced to 7,02,063. The spread of canal irrigation since 1880 reduced the devil of drought and a reverse replica of canal system in the form of drain cuts removed the possibility of the occurence of serious water-logging conditions. Thus, drought and water-logging were both under control by the end of the 19th century. With an increase in population the uncultivated area and cattle began to decrease relatively. In the decline of cattle it was the number of cows that was reduced considerably and not buffaloes, which actually increased.

This was a remarkable phenomenon. There was a decrease in the number of cows and an increase in the number of buffaloes. The figures of cattle population could be obtained since 1899 only. But they are quite significant and can help us in realising the preponderance of cows earlier than 1850.

Number of Milch cattle in Etah District.

Year	1899	1904	1909	1951	1956
Cows	98,820	88,066	68,343	55,320	47,242
Buffaloes	93,769	107,079	108,006	159,504	178,417
Total	192,589	195,145	176,349	214,824	225,659

The changes in the land-man relationship and cattle-man relationship in the Etah district are shown in the following table.

				cultivated land per head of population
Cultivated land in	1873	716661	Acres	
Population in	1872	829118	Persons	·86 Acres
Cultivated land in	1956	772713	Acres	
Population in	1951	1124351	Persons	·69 Acres

			Number of milch cattle per 1000 persons
Number of Milch cattle in	1899	192539	
Population in	1901	863948	222·9
Number of Milch cattle in	1951	214824	
Population in	1951	1124351	191·1

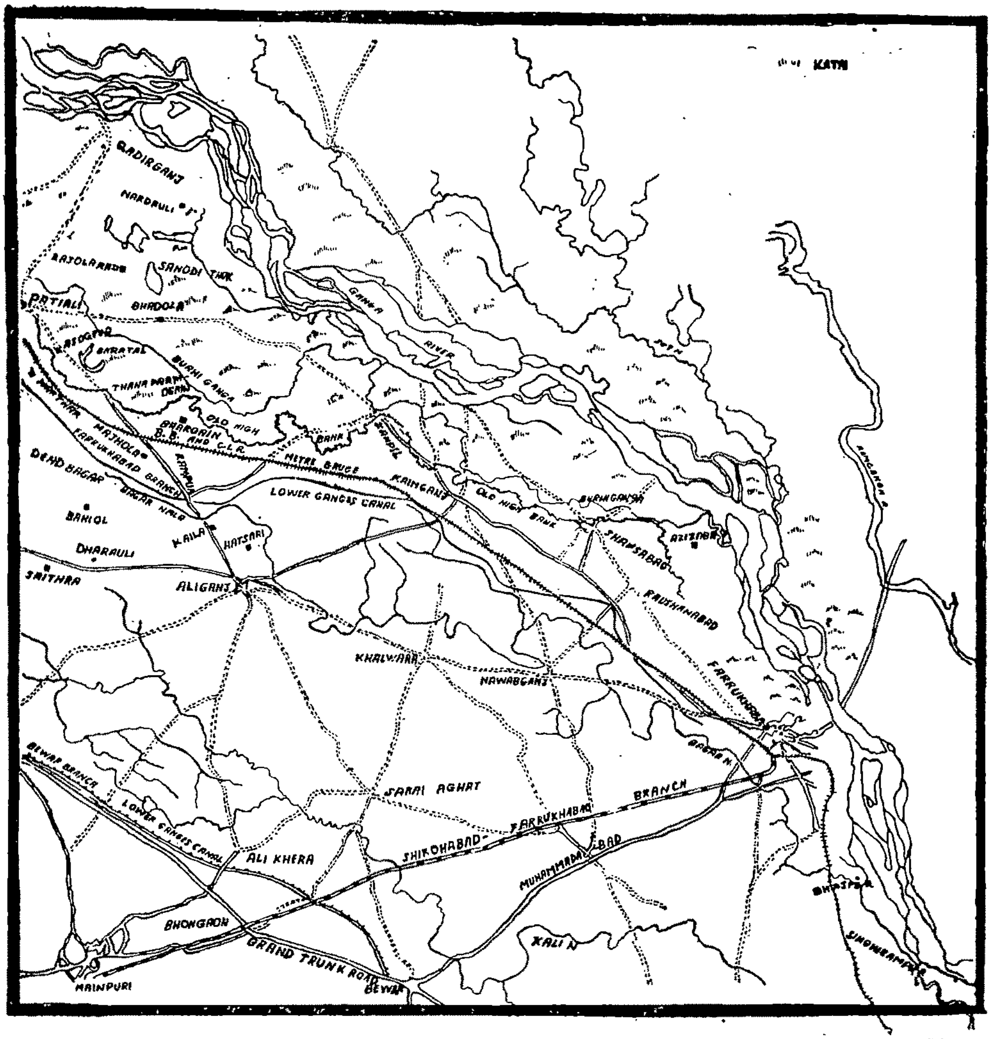
It is quite clear from the table that the area of cultivated land per head of population and the number of milch cattle per 1000 persons both declined with the increase in population.

The figures are really revealing. The total milch cattle population increased only by a modest margin of 17 per cent during the course of almost half a century but the population of milch buffaloes increased by 89.4 per cent while that of the milch cows was reduced by 52.5 per cent of the strength in 1899. Clearly a major portion of increase in the number of buffaloes has taken place at the cost of the cows. The trend obtained by this analysis also enables us to confirm the traditional information handed down from father to son that about a century ago, say in 1850, the number of cows was overwhelmingly large and that of buffaloes almost insignificantly small. In 1956 the proportion of cows and buffaloes in the total is roughly 20 to 80 while in 1899 it was 51 to 49. It seems reasonable to suppose that in 1850 this proportion might have been the reverse of the present one *i.e.*, 80 to 20. One thing also must be noted here that the milk yield of the cows individually was low but as their numbers were large and maintenance was easy and inexpensive the total quantity of dairy produce provided by them was ample and cheap. Of course, their was little trade in dairy produce, and milk, curd and ghee entered in the daily diet of the people in liberal and abundant quantities. As against this the buffaloes of the present time are much better yielders but milk and ghee have become the articles of export to cities and towns and the village people are able to get mostly sour-milk, the consumption of milk and ghee being very much restricted.

DRAINAGE AND WATER-LOGGING

After discussing briefly the soil, natural vegetation and animal life, it is necessary to review briefly the drainage of the region before taking up agriculture. Beginning from the Tarai region quite a large part of the riverine plain drains into the main river Ganga and the drainage is excellent but for the remaining part of the Tarai lying on both sides of Burhganga as well as for some part of the Pahara the main outlet is Burhganga. The watershed is said to lie about 2 miles south of the Old High Bank and the only outlet to the north is Burhganga. Thus, the old stream is the only drainage channel for a substantial part of the Tarai and some part of the Pahara region. It seems that in the early period the channel of Burhganga was kept clear by the strong flood waters which entered into the old channel from the main new stream of the Ganga near Narora in the district of Aligarh and moved down to join the main river again in Farrukhabad. But then the lower Ganga canal was taken off the river from just near Narora. The work on the canal was started in 1872 and the Canal was opened in 1878. For some distance the canal moves quite close and parallel to the river and then from Sankra the canal begins to move directly to the south. At this place on both sides of Sankra between Dinapur and Haranpur for a distance of about four or five miles engineers threw up strong spurs and protective works accross the Khadar or Tarai from the canal towards the river to restrain the erratic action of the river. Since then their works have prevented any large scale escape of flood waters from the Ganga to the Burhganga. In consequence on account of the stoppage of annual flushing the channel in the old bed got choked at numerous places by sand-spills and growth of weeds like patera plant, used mainly for rope making, rendering the current sluggish and unable to cope with a rainfall even slightly in excess of the normal and floods became a common feature.

To the south of the Burhganga and to the north of the river Kali there was a considerable area of the higher plain lying in the vicinity of the towns of Mohanpur, Sirhpura, Jaithera, Aliganj, Khalwara, Nawabganj etc., the surplus water of which perhaps did not drain into the Burhganga to the north or into the Kali to the south but found an independent outlet to the main river Ganga through the Bagar system. In the survey maps Bagar is shown as a river near Farrukhabad and as a drainage Nala in pargana Azamnagar of the district of Etah. In the maps the course of this Nala is traceable upto village Kanchanpur south of Thana Dariaoganj Railway station. Beyond this point no trace of Bagar is available in official maps to the north and west. According to the Gazetteers the Bagar rises in the north-


KATRI
QADIRGANJ
NARDAULI
RAJOLARADE
SANODI TAK
PATIALI
BHADOLA
GANGA
RIVER
BARATAL
BURHI GANGA
THANA DARYA
DERA
OLD HIGH
BHARORIN
B. B. AND C.I.R.
BANK
METRE GAUGE
KAIMGANJ
OLD HIGH BANK
BUHINGANJ
SHAMSABAD
AZIZABAD
RAUSHANABAD
FARRUKHABAD
BAGAR N.
MAJHOLA
FARRUKHABAD BRANCH
DEHD BAGAR
BAGAR NALA
BAHIOL
KAILA
HATSARI
DHARAULI
SAITHRA
ALIGANJ
LOWER GANGES CANAL
KHALWARA
NAWABGANJ
SARAI AGHAT
BEWAR BRANCH
LOWER GANGES CANAL
ALI KHERA
SHIKOHABAD-FARRUKHABAD BRANCH
MUHAMMADABAD
BHONGAON
GRAND TRUNK ROAD
BEWAR
MAINPURI
KALI N
BHOJPUR
SINGHIRAMPUR

east of pargana Azamnagar where it forms a series of shallow depressions, deepening occasionally into jhils and ultimately becomes a stream which flows into the Farrukhabad district and then traversing Shamshabad West turns to the south-west and joins the Ganga near the old town of Bhojpur. Thus from Pargana Azamnagar in the Etah district onwards through Shamshabad the Bagar provides the main drainage system.

Although to the north and west of Azamnagar the Bagar is neither shown in official maps nor mentioned in the official records, enquiries show that an old channel of sizeable dimensions still exists to the north of the village of Hatorha Ban, Hatorha Kherha, and Dhakrai and extends upto the village Dhubiai which is just to the south of Sirhpura-Ganj Dundwara Road. People call it Bagar and speak of it flowing eastwards to Bakrai, Pursari, Jasmai etc. It is said that the channel used to be active in rainy season but was almost dried up in summer, excepting the deep portion near Hatorha Ban. Old people also say, and observations likewise reveal, that while digging kachcha wells in the bed in the dry season pieces of boats were some times discovered. In spite of all the process of choking up the channel is still sufficiently deep and looks like the bed of a dead river. In the map we have put down the words 'Dead Bagar' between Dhubiai (the point upto which it is traceable at present) and Kanchanpur (from where it is now shown to be rising in the maps).

The old channel of the defunct Bagar near Hatorha Ban is really so big that we do not feel inclined to take it as the starting point of Bagar. Although no further evidence of its extension beyond the old channel is available it seems probable that it must have existed to the north-west even beyond this point. It seems reasonable to suppose that the shallow depressions sometimes deepening into shallow jhils running south-east from Mohanpur and Sirhpura must have carried their waters into the Bagar somewhere south of Hatorha Ban. It is not possible to say whether Bagar ever existed as a vigorous river in these parts.

But somehow or the other, the Ganga, Burhganga and the Bagar provided a tolerably good system of drainage upto the year 1885. According to official version a period of Gharqui (water-logging) began in the year 1885 on account of excessive rainfall in both the districts of Etah and Farrukhabad A succession of excessively wet years was said to have continued for almost 12 years upto the year 1897. The culminating point was reached in the year 1890-91 when 34% of the cultivated area in Tarai, 36% in the higher plain drained by Burhganga and Bagar, and 31% in the Kali Nadi Valley, went out of cultivation. It is said that the rains were excessive and they continued late in the season. Kharif crops were lost on account of the heavy rain and Rabi preparations were slackened and sowings were delayed and reduced as the ground was not cleared of the rain water till late in October. Wheat crop suffered most and was usually replaced by gram. The menace of the wild pigs increased. A small burrowing animal of the size of a young of a pig called 'Ghuns' which harassed people by burrowing under the foundations of their houses also appeared on the scene. A large number of people suffered from unhealing boils (called Galao) on their lower legs. In a number of places bogs used to develop in which there was the fear of the cattle sinking down. People gave up their lands and villages and migrated to other places outside the gharqui stricken area.

After 1890-91 official records speak of the setting in of a slow but steady recovery which was almost complete by 1897. But in reality the areas that went out of cultivation were not fully restored upto 1902. The loss of cultiva'ed area in two or three important Parganas was as follows:—

Pargana	Extent of loss upto 1890—91	Loss made good by the year
Soron	26%	1902
Un-irrigated		
Patiali	53%	1902
Azam Nagar	30%	1902

In district Farrukhabad conditions were not far different. The average cultivated area between 1881 and 1885 was 631,379 acres. It touched the lowest point of 504,976 acres in 1896-97. It was said that the eleven wet seasons left the district very badly crippled from the point of view of agriculture. If we take the year of complete recovery to be 1902 or 1903, the period of water-logging lasted for about 20 years and not only 11 or 12 years.

According to the version of the local population water-logging conditions appeared in Vikram Samvat 1940 (Christian era 1883) and lasted for 20 years upto Sambat 1960 (1903 A. D.), although partial recovery started in Samvat 1853 (1896 A. D.). Both the versions are almost identical with minor differences.

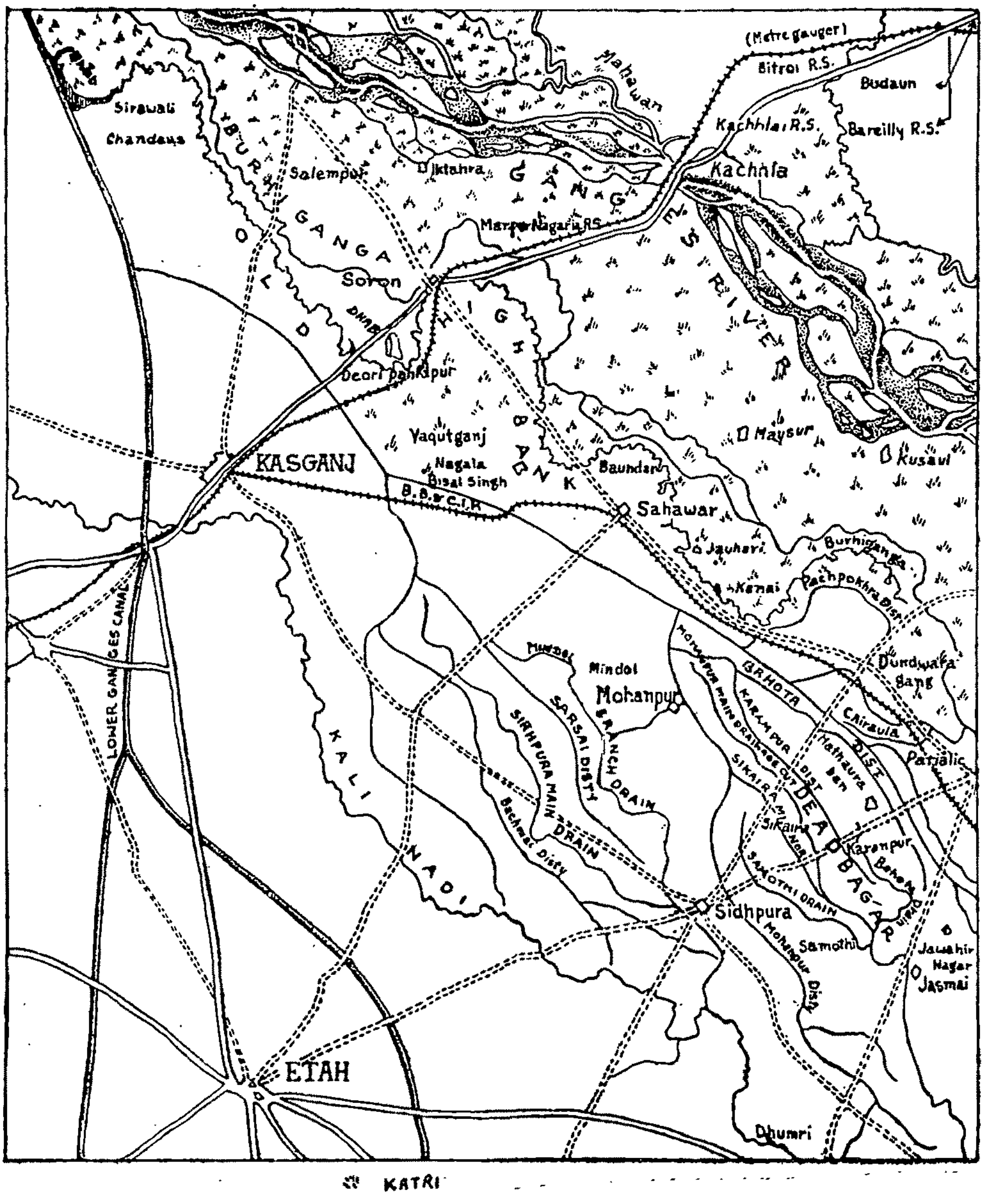
We have to examine the official theory of wet seasons for the occurence of water-logging for a period of about 20 years. The rainfall figures for a period of 31 years are given below:—

Annual Rainfall in inches.

Year	Etah		Farrukhabad	
1880	13·80	27·96	15·00	25·49
1881	35·30		25·45	
1882	34·60		21·43	
1883	21·00		20·49	
1884	35·10		35·07	

Year	Etah		Farrukhabad	
1885	33·10	32·5	34·69	39·87
1886	29·50		40·45	
1887	40·70		33·91	
1888	32·93		47·77	
1889	26·27		22·51	
1890	28·80	30·29	25·43	40·40
1891	27·86		40·31	
1892	25.52		36·29	
1893	35·49		48·08	
1894	33·78		50·07	
1895	31·80	25·51	31·80	31·12
1896	14·69		14·56	
1897	31·06		48·18	
1898	21·42		34·54	
1899	28·59		26·64	
1900	22·70	21·59	27·25	31·87
1901	17·03		26·95	
1902	19·70		29·51	
1903	30·39		45·70	
1904	28·14		29·96	
1905	11·96	22·53	17·47	28·57
1906	30·71		45·15	
1907	16·36		22·29	
1908	25·40		29·80	
1909	28·22		28·12	
1910	32·44		26·98	

If we try to see the quinquennial averages beginning from the year 1880, we find that the rainfall was comparatively heavy between 1885 and 1894 in the Etah district. The same thing was true of the district of Farrukhabad. But the year 1880 seems to be the year of a very low rainfall. If we exclude it and then calculate the quinquennial averages we come to the conclusion that the average rainfall in the Etah district between 1886 and 1895 covering the worst years of the period of water-logging was in no way heavier then in the previous quinquennium (1881 to 1885). Similarly the difference in the average rainfall between the two quinquenniums, the first from 1881 to 1885 and the second from 1886 to 1890 was not very appreciable, but the average rainfall during the third quinquennium from 1891 to 1895 was certainly heavy. Taking individual years it can be said that the years of comparatively heavy rainfall in the Etah district were 1881, 1884, 1887, and 1893. Out of these four only two i.e., 1887 and 1893 fall within the worst period of water-logging. In the same way the individual years of heavy rainfall in the Farrukhabad district are 1885, 1886, 1888, 1891, 1897, and 1903. In this district the cultivated area touched the lowest level in 1896-97, and thus between 1835 and 1897, five years out of twelve were of heavy rainfall. On


(Metre gauge)
Bitroi R.S.
Budaun
Bareilly R.S.
Mahawan
Kachhla R.S.
Kachhla
Sirawali
Chandaus
BURH GANGA
OLD GANGA
Salempur
Jktahra
GANGA
Marpur Nagaria R.S.
GANGES RIVER
Soron
DHAB
HIGH BANK
Deori Dahkipur
Yaqutganj
Nagala Bisal Singh
B.B.&C.I.R.
KASGANJ
Baundar
Maysur
Kusaul
Sahawar
Jauhari
Burhiganga
Kenai
Pachpokhra Disty
LOWER GANGES CANAL
KALI NADI
Mindol
Mohanpur
SARSAI DISTY
BRANCH DRAIN
SIRHPURA MAIN DRAIN
Bachmai Disty
MOHANPUR MAIN DRAINAGE CUT
BRHOTA
KARAMPUR DIST
SIKAIRA MINOR
Sikaira
Chiraula
Hathaura Ben
DIST
DEAD BAGAR
Karanpur
Baheli Drain
Dundwara Gang
Patialic
SAMOTHI DRAIN
Sidhpura
Samothi
Mohanpur Disty
Jawahir Nagar
Jasmai
ETAH
Dhumri
KATRI

the whole out of a period of 30 or 31 years covered by the statistics of rainfall given here the first 15 years upto 1895 appear to be wetter than the subsequent fifteen years ending 1910.

The rainfall during the years of water-logging seems to be higher but the heavy rainfall was never continuous over any series of years. Between the years of heavy rainfall there always were years of normal rainfall. Under these conditions we can expect floods in certain years but not continuous water-logging and we feel rather disinclined to accept the official theory of twelve wet seasons causing water-logging.

In our view the main cause of the appearence of water-logging conditions in these regions seems to be the up-setting of the delicate natural drainage system by the intervention of the human hand. It has already been stated that the lower Ganga canal from Narora was opened in 1878 and that the engineers sealed the channels of escape of flood waters from the Ganga to the Burhganga. Thus, the flushing of the stream during the rainy season was stopped from 1878 onwards and in four of five years' time, by about 1883, the channel of Burhganga must have got sufficiently choked to carry off any excessive rainfall in this part of the Tarai. The Fatehgarh Branch of the Lower Ganga Canal irrigating the adjacent Pahara region was opened in 1881. Its branches and distributaries criss-crossed the already inactive Bagar and its subsidiary channels formed of depressions and tals between Mohanpur and Kanchanpur and made them almost dead and defunct. The Kanpur-Achnera branch of the B. B. & C. I. Railway running at a short distance from the Old High Bank between Burhganga and Bagar reached Farrukhabad on February 1, 1881 and Kasganj on April 14, 1884. Thus, the construction of Railway and the canals between 1878 and 1884 was the main factor responsible for up-setting and almost destroying the delicate and somewhat inactive natural drainage system of the area. And really this disturbance and obstruction of the natural drainage system created the conditions for the occurence of Gharaqui or water-logging which took place in 1883 or 1885 (according to the traditional and official versions) lasting 12 to 20 years. This water-logging appeared in an aggravated form on account of higher rainfall during these years.

This reasoning is further supported by a study of the measures taken to overcome water-logging. The engineers realised their mistakes in four or five years' time and began to take appropriate measures to correct the mistakes. The improvement of the drainage of Burhganga was taken up in 1891 by the Irrigation Department. Its bed was excavated and straightened and since then the work of keeping the stream clean of weeds like a drainage Nala was taken up. Perhaps the construction of elaborate drainage cuts was taken up in Samvat 1950 (1893 A. D.). Mohanpur and Samothi drainage cuts were constructed to take off the surplus water from the east of Mohanpur and Sirhpura, the area sending its water to Bagar through depressions originally;

and the Bagar itself at Hatorha Ban was drained off by the Bahota drain. All these drain cuts were combined into one and joined to the river Kali after cutting through the watershed between the Bagar and the Kali. Thus, the water which was carried through the Bagar system, rendered almost dead and defunct by the canal and railways, to the main stream of Ganga was diverted to the river Kali through an eloborate system of drainage cuts. A perusal of the maps would show that there are two drain cuts connected with each canal distributary, one on each side of it. The Bagar in the Azamnagar Pargana and the Farrukhabad district has been similarly provided with subsidiary drainage cuts. The official statement that the water-logging conditions began to recede after 1890-91 is perhaps clearly explained by the creation of the artificial drainage system to take the place of the natural one. Almost complete relief came by the end of the century. In spite of so elaborate a drainage system the area is sensitive to excessive rainfall. In the rainy season of 1958 water-logging appeared in many parts of this region. People cut roads and canals to clear the water from their neighbourhood. The Government has undertaken the construction of an additional drainage cut between Sikaira Minor and Samothi drain. In the northern part of the region there were large expanses of water and it was famous for wild foul especially the snipe and the duck. Bagar near Hatorha Ban was one of these places where Englishmen came for shooting birds in winter, especially at Christmas. But after the drainage operations along the Valley of Burhganga and Bagar the rich bird life declined. At the present time we seem to be on the threshhold of a new drive of building pucca roads and extending irrigation facilities. On this occasion our engineers should take a lesson from the floods and water-logging difficulties experienced in the Western U. P. and the Eastern Punjab during the last few years. We should plan our communication and irrigation systems with full and complete awareness about the need not only of maintaining the existing natural drainage but also rather of improving it artificially along with the road and irrigation programmes. In this connection our problems are far different from those of the countries of the west inasmuch as the discharge of our drainage channels is disproportionately high in the rainy season in comparison to other months of the year and our bridges, culverts etc. have to be designed to meet the requirements of extraordinary conditions created by the sudden and heavy downpours of the summer monsoon.

CULTURE—ITS AESTHETIC AND THEORETIC BASIS

B. G. TIWARI, Ph. D., D. Litt.
Professor of Philosophy and Psychology, Agra College, Agra.

INTRODUCTION

In his remarkable monograph, entitled, "The Meeting of East and West", the distinguished American thinker, Prof. F.S.C. Northrop, attempts a synthesis of the traditional values and cultures of the East and the West. He holds that culture has two components, *viz.*, (*i*) the *theoretic* component and (*ii*) the *aesthetic* component. The theoretic component gives us concepts, arrived at by "*Postulation*", *i.e.*, deductively formulated, scientific hypotheses, theories and principles, inferred through mediate thinking or reasoning ; consequently, it leads to scientific discoveries and inventions. The aesthetic component, on the other hand, gives us concepts by "*Intuition*", associated with *feelings*, which are experienced immediately.

Prof. Northrop, further, maintains that the dominance of the *theoretic* component is the distinctive characteristic of western culture, while the preponderance of the aesthetic component is the chief feature of Eastern culture.

Northrop cites a formidable array of facts and produces impressive evidence in support of his thesis. Yet, it appears that he has ignored the presence of intermediate types and of cases of the over-lapping of species in the cultures of the East and the West. For, in both cultures, there are individuals, groups and peoples, who, in varying measures, combine, in their consciousness, both the theoretic and the aesthetic components.

With this qualification, however, we welcome Prof. Northrop's attempts to arrive at a synthesis of Eastern and Western cultures. We also accept the view that the crying need of the hour is a synthesis, in the continuum of human consciousness, of the aesthetic and the theoretic components.

Is Art the *root* of Thought or its *flower* or *fruit* ? Over this question, a hot controversy has, for some decades, been raging among art-critics, in the West. On the one hand, for intuitionists like Croce, Expressionists like Pirandello, the advocates of the doctrine of "Art for Art's sake" and Kantian epistemologists like Collingwood, "*Art is the root of Thought*" ; and, on the other, for Rationalists and Conceptualists like Sorokin and Scott-James and for the advocates of Didacticism in Art, "Art is the flower or fruition of Thought".

Most aestheticians, however, are, today, agreed that Art is neither *Imitation* (or Representation), pure and simple, as Craft, for instance, is; nor is it sheer *Invention*. Consequently, they hold, with Shelley, that "*Art is the expression of the Imagination*". But, as regards the nature of this mysterious Imagination, while those, who consider Art to be the root of Thought, hold, with Kant, Dinnāga and Dharmakīrtī, that Imagination is the faculty, which precedes Thought or is intermediate between Sensation and Thought, others, who believe Art to be the flower and fruition of Thought, maintain, with Coleridge, Arnold and Dante, that consemplastic Imagination works upon the concepts, postulated by Thought and Intellect and, consequently, it is *posterior* rather than *prior* to Thought.

There are elements of value and truth in each of the above two doctrines concerning the nature and significance of Art. The Intuitionists, for instance, rightly, recognise the superb beauty and the spiritual significance of the immediately given, emotionally vivid moment of aesthetic intuition,—the pure sense-feeling with all its ineffable quale and luminosity,—the bare emotive fact, at the stage, which precedes the interpretative work done by the apparatus of Thought and Reason. The stress here is not on the perception of the external, three-dimensional physical object, but rather on the more primary consciousness of the aesthetic object, the emotionally warm and vivid personal experience, filled with aesthetic content, such as the crunching of sugarcane sprouts between one's teeth or the enjoyment of the flavour of tea or of rice and curry or the Wordsworthian delight at the sight of a rain-bow in the sky. In such cases, Imagination—even at the level of bare, primitive consciousness—owns and modifies the crude sensum cum emotion and converts it into idealized or aesthetic emotion. Thus, the "Imaginary" experience is not make-believe or invention or anything private ; nor is it purely sensuous or anything specialized. It is rather the activity of the entire self that owns and explores the perturbation, caused by the crude sense-feeling.

This recognition, then, of the superb beauty and the spiritual significance of the immediately given, emotionally vivid moment of aesthetic intuition is a great insight, a remarkable discovery. The Lockean, blank-faced Anglo-American soul, has a philosophy of life, which shuts its eyes to the creative fire in man's nature, to the *eros* or frenzy in all its human expressions ; consequently, it so cuts man's soul off from the fresh, warm, bodily, earthly feeling of life and from the emotional, aesthetic and spiritual element in man's nature, that it becomes artificial, stereotyped, without the individuality of the feelings, sentiments and imagination,—afraid of expressing its emotions, and, hence, colour-less and, often, neurotic. Similarly, according to Jacques Maritain, in "France, my country through Disaster", it was the loss of her medieval religious faith that led to the fall of France, in World War II. This time, Joan of Arc did not rise again. *The neglect of the aesthetic component may, thus, be fatal to a* *culture.* And, vice versa, its recognition can be very enlivening, indeed. Thus, in Mexican culture, the weight of emphasis is upon the aesthetic intuition, and the individual, mystical and religious passion : in his paintings, Orozco's most striking, important, and universal symbol is *fire*. The artists of Spanish America are convinced that tragedy, brutality, chaos, failure, and death, as well as triumph and compassion, the effort at order, and earthly life are an essential part of the glory of man ; and that, in religious matters, social ceremonies or artistic rituals are not as insignificant as the average Anglo-American soul considers them to be. Similarly, the orthodox Chinese artist, like most other Asian artists, tends to restrict himself and his conception of the nature of things to the immediately experienced aesthetic continuum and its aesthetic objects in and for themselves, for their own sake. In traditional Chinese poetry, the premium is upon rearing, in the immediately introspected imagination of the reader, with a minimum of symbols, the maximum amount of rich, subtly related, immediately felt aesthetic content. Not only have the visual and auditory symbols themselves this immediate, aesthetic content ; but, for the Chinese artists, the totality of the nature of things has also this primarily aesthetic character. Both Lao-Tzu and Confucius refer to an all-embracing immediacy, which one can find within the self ; and Lao-Tzu also finds this all-embracing immediacy in Nature ; it is, thus an all-embracing immediacy, found both in Man and Nature,—an immediately apprehended aesthetic continuum or manifold, within which the introspected images , associated with the self, or the sensed qualities, associated with natural objects, are mere local differentiations.

The same appreciation of the aesthetic, which is found in traditional China, Korea, and Japan, exists also in Buddhist Tibet : here, according to Marco Pallis, we have a "people, who have shown so much taste, and who delight in all that is beautiful". The highest level of refinement is reached not only in the furnishing of temples, but in the apartments of the highest Lamas. As regards Buddhist art, all subsequent doctrines and traditions attempt, in varying measures, to convey the earlier, *intuitive insight* of the Buddha. The identity underlying the differences in Buddhism, Taoism, and confucianism Buddhism, is under-scored by Lin Yutang, who, in "My country and my People", writes : "... . ... the artist should convey to us the spirit of the scenery and evoke in us a sympathetic mood in response .... He should convey to us the benefit of that communion with nature, and communicate to us some of the spirit of the things, as it is instilled into his soul, and recreate for us a picture, surcharged with moods and feelings, ever-changing and wonderful like nature itself." It is said that to paint a bamboo, a Chinese painter becomes a bamboo and paints the aesthetic object from within. In India, too, the factor of immediate, direct experience or intuition has been emphasized in Buddhist, Tantric and Vaishnava art. And in most religious disciplines, such as those of the Vedanta, Tantra, Vaishnavism, Buddhism, etc., the stress is placed on the appreciation and realization of the immediately-experienced "all-embracing-ness", the intermediate "all-inclusiveness", common to all persons and all aesthetic objects. The lusciousness of form, the innocent and spontaneous joy of life, the delicate and tender feeling for nature, the brotherly sympathy with all living things, the tenderness of the Buddhist, the Jaina and the Vaishnava towards the whole universe, the understanding of floral and animal forms, that characterize those encyclopaedias in stone, the temples of the centre and the South, all stem from the unlimited, indeterminate, aesthetic intuition of Eastern culture.

Even in the ultra-modern "Abstract Paintings" of the West, the idiom of colour and form, in itself, without any aid from even the slightest theoretic content, evokes a deep emotional response. Just as in Music, the sheer beauty of the *tune* , in itself, in utter isolation from the *meaning* or *message* of the song, may call forth a specific emotion, so also in Painting, different colours and forms can stir specific emotions within us.

According to Northrop, this stress on the aesthetic and emotional factors in man's nature and the nature of things is *the sole characteristic that marks off Eastern culture from the culture of the West.* But, according to other observers, this stress on the aesthetic and emotional factors rather than on the theoretic, scientific factors in man's experience, may be found in individuals and groups, both in the East and the West ; and, of course, there are intermediate types between the two. From the evidence of acute aestheticians like Croce, Collingwood and others, however, it is clear that Art proper or Art, in its first function, is the expression of this primary *intuitive* or *imaginative* sense-feeling or aesthetic perception.

Does the above view amount to an acceptance of what is called "Expressionism" in Art? The answer is, clearly, in the negative. For "Expressionism", *e.g.*, the work of Pirandello, the play-wright, is only one particular form of art, while the above view concerning the aesthetic component of culture, is applicable to all art : Sophocles, Shakespeare, Tulsi and Ghalib are just as Expressionist as Pirandello. Successful expression is self-liberation.

Again, it may be objected that, if art is intuition and *intuition is individuality* (and individuality is never repeated), how can an appreciator of an artist's work gain a beautiful object ? Northrop replies that, while each individual has certain distinct interests, which have biological and psychological bases, there are, in man and nature, certain characteristics, which are common to all men and things. Hence certain processes and techniques give the same results for one person, that they give to another. This view saves the doctrine from the charge of *aesthetic (and ethical) relativism. Art is social* and intelligible language, for the artist, as an individual, is *rooted in society.* Even Croce concedes the necessity of knowledge, imagination, taste and historical research in the appreciator and the critic.

Some extremists of the Intuitive School, however, go to the extent of regarding this intuitive-emotive trait as the sole *characteristic of all real art.* What is more, they, bitterly, denounce those, who, openly or covertly, introduce the *theoretic content* in Art. Thus, one of the Western defenders of the portrayal of the purely empirical aesthetic factor in things for its own sake, Theophile Gautier, in the *Preface* of his "Mile. de Maupin", criticises those, who have no sense for the *empirical, emotional, aesthetic, immediacy* of things, in these terms:—

"Poor fellows ! Their noses are too short to admit of their wearing spectacles, and yet they cannot see the length of their noses.

"If an author threw a volume of romance or poetry on their desk, these gentlemen would turn round carelessly in their easy chair, poise it on its hinder legs, and balancing themselves with a capable air, say loftily : "What purpose does this book serve ? How can it be applied for the moralisation and well-being of the poorest and most numerous class ? What ! not a word of the needs of society, nothing about civilisation and progress ? How can a man, instead of making the great synthesis of humanity, and pursuing the regenerating and providential idea through the events of history, how can he write novels and poems, which lead to nothing and do not advance our generation on the path of the future ? How can he busy himself with form, and style, and rhyme in the presence of such grave interests ? ....Society is suffering ; it is a prey to great internal anguish."

"No, fools, no, ...a book does not make gelatine soup ; a novel is not a pair of seamless boots.........you are a cobbler, I am a poet....... I know there are some, who prefer mills to churches, and bread for the body to that for the soul......... For my own part, I prefer a Chinese vase, strewn with dragons and mandarins, and of no use to me whatever ; ......and of my talents, the one I esteem the most is my incapacity for guessing logogriphs and charades."

To us, Gautier's view appears to be an extreme and a one-sided one. It leads to aesthetical relativism. The utter neglect of the theoretic content cannot make any art a great one. If the artist's vision is so individualistic as this, how can an appreciator hope to enter the mind and heart of the artist ?

As the opposite extreme are those art-critics, who extol the theoretic content in art and under -rate the moment of empirical, emotional, aesthetic immediacy.

Thus Oscar Wilde, in an essay concerning Pater, observes that "to convey ideas through the medium of images has always been the aim of those, who are artists as well as thinkers in literature". Similarly, George Sand, in a letter to Flaubert, writes : "I am aware that you are opposed to the exposition of personal doctrine in literature. Are you right ? Does your opposition proceed rather from a want of conviction than from a principle of aesthetics ? If we have any philosophy in our brain, it must needs break forth in our writing." In this sense, art can very well be the flower and fruition as well as the root of theory. According to Scott-James and some others, all art or, at any rate, all great art is of this second type.

Most traditional Western art is of this second type. In this *conception of Art as Science,* Art is based on the principles of optics, the theory of proportion and perspective. Thus, a student of painting in a traditional western art-school, begins with the laborious copying of the three-dimensional, geometrical casts of Greek statues, and then passes on to the three-dimensional human figure in the nude, to master the use of perspective, which the Western postulationally formulated science of geometrical optics has defined. He also studies anatomy and other sciences. The same out-look dominates the mind and heart of the lover of traditional western art. Thus, referring to President Jefferson's enjoyment of the arts, a western critic observes, "The inevitable *mathematical processes,* instead of coming last, came first. He gave expression to *Mathematical* over *graphical* methods of deriving his designs." (Italics ours). "This", comments Northrop, "*is the typical art of a Western civilization,* which grounds its use of the aesthetic component in the *scientific principles* of the theoretic component. The essential connection between aesthetic values and science is evident". Such art lacks in psychological freedom and tends to become cold, colour-less and dull. Great art cannot be reared on such foundations as these.

Discriminating aestheticians, however, are, to-day, inclined to favour a middle path between the above extremes. While, in its first, primary function, Art must remain the expression of intuitive, emotive, aesthetic immediacy and one type of art may even be, solely, confined to the expression of the intuitive moment, in its second and no less important function, Art may, very well, become the vehicle for conveying *theoretic doctrine.* Not only in their theory and practice, do art-critics and artists like Dante, Coleridge and Arnold, but even exponents of the Intuitionist school, like Collingwood, Northrop and several others recognise that imaginative, emotive expression can be associated not only with sense-feeling, but also with the work of Thought and Reason : there can be Emotions of the Intellect, too. Imagination, Emotion and Aesthetic Expression can be associated even with the stir caused within us by *theoretical doctrine.* All that is necessary is that the *intellectual convictions* should be strong and the emotions deep and that they should be sincere, integral reactions of the artist's personality or soul to the situations—actual or imagined—of Life and Experience. It must, however, always be borne in mind that, behind each art-form, there is always the *aesthetic emotion :* the artist's imagination modifies both crude, brute emotion and the emotion of the intellect and converts each into idealized or *aesthetic emotion* and, further, it yokes the expression of this emotion to the service of the demand for Harmony within the soul.

In its first function, then, art may be the root of Thought. But, in its second function, art is the flower and fruition of thought. Northrop cites many instances in support of this view. For example, Lucretius' famous poem, "De Rerum Natura" gives expression, in the intuitive language of the poet, to the theoretic component of the nature of things, as conceived according to the atomic theory of Democritus and Leucippus. Similarly, Dante's "Divine Comedy" and several of Shakespeare's works give expression to the Aristotelian conception of the nature of men and things, which the poets had, previously, imbibed through study or discourse.

There may, further, be a blend of the aesthetic and the theoretic components in great art. We can notice a judicious, happy blend of both in Buddhist and, again, in Mughal architecture in India. According to Grousset, to the purity of out-line of the Greek geometrical form, the Indian Buddhists give a new fullness and freshness of life. The harsh realism...... ......became a free and wonderfully flexible naturalism—and Indian art was born". Rudyard Kipling's Kim, after he has passed through the turn-stile into the Museum in Lahore, in the heart of the old Punjab, finds the Lama standing, in rapt attention, before a large alto-relief, representing a coronation or apotheosis of the Lord Buddha, in which the Master is represented as seated on a lotus, the petals of which are *so deeply under-cut as to show almost detached.* Such is the superb beauty of these Buddhist art-products, the off-spring of the wedding of the sharply-limited, Greek three-dimensional, geometrical form and the unlimited, indeterminate Indian aesthetic intuition, with its tenderness towards the whole universe! In the Taj Mahal of Agra, too, we have blend of the East and the West, of aesthetic immediacy with doctrinal postulation, of the purity of out-line of the West and the delicate and tender feeling for nature of the East. In great art, then, we witness the integration of the pure sense-feeling, with all its ineffable quale and luminosity, with the intellectual stir, associated with the calm, clear light of Reason. *This integration* can even in future confer not only an Art alone, but on *religion, culture and the other humanities* twice the richness, hitherto associated with their traditional forms and contents.

ECONOMIC PLANNING IN CHINA*

M. L. Seth, M. A., Ph. D.
Associate Professor of Economics, Agra College, Agra.

> "Indeed, the Chinese experiment must by now be regarded as far more significantly revolutionary in its scope and far more interesting for the future of poor areas than the Soviet development, however impressive that may have been. Its importance is due to the fact that, for the first time, a country has been able to mobilise the inert masses without first having to equip them with more or less elaborate equipment."
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> (Dr. Thomas Balogh—*Economic Balance Between West and East*, Commerce Annual Number, p. 21).

INTRODUCTION

The Chinese Communists inherited a badly shattered economy when they came into power in 1948 after the collapse of the KMT regime. The KMT in its last death agonies had reduced the country to financial and economic chaos. The agricultural output had dropped by above 20% from the average annual yield between 1931 and 1936. More than 90% of the steel production capacity had been destroyed during the civil war. The nation's communications system had been completely paralysed, the fleeing KMT having destroyed more than half of the then existing railway track. The processes of production, distribution and exchange in agriculture, industry and other spheres had been violently disrupted. There had been indiscriminate resort to the printing press by the morally discredited and financially bankrupt KMT regime, bringing hyper-inflation and sky-rocketing prices in its wake. By August 1948, the wholesale prices in Shanghai had risen by 85,000 times and in the months of September and October, they were rising at the rate of 10% per day.[1]

Period of Economic Rehabilitation (1949-1952).

The Chinese Communist Party formulated an economic programme early in 1949 to rehabilitate and reinforce the national economy. The immediate enforcement of this programme resulted in halting the process of economic deterioration. A little later, the trend was reversed; there was economic improvement, slow at first but gathering momentum with the lapse of time till 1952 when most of the earlier peak levels in various industries and agriculture had been surpassed by a substantial margin. In May 1949, the new government introduced a single, unified currency all over the country which gradually won the confidence of the masses. It was soon followed by steps taken to bring about a unitary economy and an effective national market. This in itself was no small gain because China throughout its long history had never enjoyed the advantages of a single national market. For the first time, a national budget covering the whole national economy was introduced in March, 1950 with only a small deficit compared to the astronomical deficits of KMT days. The subsequent budgets showed even sizeable surpluses which put an end to the 12-year-old inflation, bringing in their wake a welcome stability in the internal price-level.

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[1] United Nations—*Economic Survey of Asia and the Far East*, 1949, pp. 99-100.

The new Chinese Government considered agrarian reforms as indispensable for the rapid growth of the economy. The Agrarian Land Reforms were enacted on 30th June, 1950, and within the next two years the reforms had been more or less completed. It is said that over 115 million acres of land were distributed among 300 million small owners and landless labourers.[2] Tens of thousands of houses, about 30 million draft animals, 40 million agricultural implements and 5 million tons of foodgrains belonging to the landlords and other big landowners were confiscated and distributed among the poor and landless labourers.

During this period, substantial investments were made in agricultural and industrial production, water conservancy, railways and communications and other capital construction projects. In fact, the total investment made in these items during 1950 and 1951 exceeded the total spent in the entire 22 years of the reactionary KMT rule. Astonishing progress was achieved in the communications and transport systems of the country. By 1950, 90% of the total length of the railway track had been brought into working order. As regards trade, it was probably the first time in the history of China that interflow of the local products took place on such a large scale throughout the country. The Chinese economy during this period came to have the following sectors (i) State sector comprising of heavy industry, transport, distribution and finance, (ii) Cooperative sector comprising of agricultural producers' cooperatives, supply and marketing cooperatives etc., (iii) Capitalist ownership sector comprising those enterprises in the light industry which were still owned by private capitalists (iv) Individual ownership by working people sector comprising of individual peasants, handicraftsmen and other self-employed persons (v) State-capitalist sector comprising of those enterprises which were owned by the State jointly with the private capitalists. It is thus evident that the pace of socialist transformation was deliberately slowed down with a view to avoiding any abrupt interruption in the processes of production. The private enterprise was allowed to continue, subject, of course, to government regulations.

The share of state, cooperative and joint state-capitalist industrial enterprises rose from 36.7% of the total industrial production in 1949 to

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[2] S. Adler-*The Chinese Economy*, (1957) p. 12.

61% in 1952. In agriculture, 40% of the nation's peasant households had joined mutual aid teams by 1952, while 3644 agricultural producers' cooperatives had been organised. State concerns and cooperatives handled 63.2% of domestic wholesale trade and 34% of retail sales. This general strengthening of the socialist sector provided the government with the possibility of introducing planned economy in the country.[3]

TECHNIQUE OF PLANNING IN CHINA[4]

(i) *Planning Machinery*—The supreme political as well as economic authority in China is the National Peoples' Congress which is China's Parliament. All major decisions regarding planning have to be finally approved by it. Below the Congress, there is the State Council (equivalent to the Indian Cabinet of Ministers). A Vice-Premier in the State Council is in charge of economic planning. There is the State Planning Commission attached to the Central Government. It works under the direct control and supervision of the Vice-Premier (equivalent to Minister in India). As in the Soviet Union, there are two types of plans—a long-term plan which is for five years or more and a short-term plan restricted to one year. Attempts are also made to prepare programmes of economic development for even longer periods, say, 12 or even 15 years. Upto July 1956, both the long-term and short-term planning were done by the same body, namely, the State Planning Commission. But after this date, following the Russian example, the work on long-term planning has been separated from that on short-term or annual planning. Long-term planning including 12 to 15 years planning continues to be done by the State Planning Commission. But annual planning is now done by a new body known as the State Economic Commission. This separation of annual planning from long-term planning, however, has not been enforced at the provincial level where the entire work of planning still continues to be done by the same organisation. At the provincial level there is the Provincial Planning Commission which is the counterpart of the State Planning Commission at the centre. Below the provincial level, there is a Planning and Statistics Section at the county level. To provide the statistical material to the Central State Commission, there is the State Statistical Bureau which was set up in 1952. Its provincial counterpart is known as the Provincial Statistical Bureau.

(ii) The actual detailed work of planning is done by the "basic units". In case, the enterprise (factory or farm) is a socialistic enterprise (State-owned enterprise) or is a cooperative enterprise, it automatically becomes the basic unit and can do the planning for itself. This is called *direct planning*. In case the enterprise is a capitalistic or semi-capitalistic enterprise, then the basic unit for planning would not be the enterprise itself but the concerned administrative unit *viz.* Hsiang or County or Province. In other words, capitalistic enterprises are not allowed to plan for themselves. Plans are rather prepared for them by the administrative organs. This is called *indirect planning*. Since the capitalistic sector has considerably shrunk in size since 1948, the bulk of the planning in China is direct planning. But before the plans are sent by the basic units to the higher authorities, they have got to be discussed by the general body of workers in the case of a factory or a farm.

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[3] *I Five-Year Plan for the Development of the National Economy of the Peoples' Republic of China in 1953-57* pp. 14-15.

[4] *Based on the Report of the Indian Delegation to China* (1956), pp. 50-59.

The general procedure of planning in China conforms more or less to the Russian planning procedure. The State Planning Commission in consultation with the various ministries of the Central Government prepares the *control figures* for the entire national economy. After securing the approval of the State Council, these *control figures* are sent down to the lower organs through two channels. The first channel is the central ministries and their counterparts in the provinces and the counties. The second channel is the provincial government and the Planning Commission and their counterparts in the counties. The lower planning organs draft their own plans which are then submitted for the consideration of the State Council. Copies of these draft plans are sent to the State Planning Commission which, on their basis, prepares the national plan. After the approval of the State Council, this National Plan goes to the National Peoples' Congress. Once approved by the National Peoples' Congress, it acquires the force of law. It is then transmitted downwards to the lower organs through the same two channels mentioned above. The plan is then broken up into different components for the purpose of implementation.

The Chinese planning is carried out both in physical and financial terms. Financial planning is necessary in view of the fact that, *firstly*, China has not been able to do away completely with the capitalistic sector and *secondly*, because complete statistical information is not available for all the aspects of the Chinese national economy. China, however, is making sustained efforts to make her planning physical on the lines adopted in Soviet Russia. But, for some time to come, the Chinese shall have to do financial planning in addition to the physical planning. The annual plan in China is a detailed financial plan. As regards physical planning, the principal method adopted is the "method of balances" as practised in the Soviet Union.

China's I Five-Year Plan (1953-1957)

Economic planning became a dire necessity for China both on ideological as well as practical grounds. There was also the shining example of the Soviet Union which had attained a marvellous economic transformation from the position of a backward and under-developed economy within an incredibly short time through the instrument of economic planning. New China, therefore, decided to plan her economy as soon as economic conditions had settled down in the country. China's I Five-Year Plan, although it was supposed to have begun in 1953, was not adopted till the 30th of July 1955. This delay in adopting the final plan was due to several causes such as lack of experience in long-range planning and the existence of various types of sectors in the Chinese national economy.

The long-term objective of Chinese economic planning was to achieve the essentials of socialist industrialisation, socialist transformation of agriculture and handicrafts and socialisation of private enterprise within the space of three five-year plans *i.e.*, by about the year 1967. The I Five-Year Plan was to serve only the first step in that direction. The immediate objectives of the I Five-Year Plan were as follows :

(i) To lay down the foundations of socialist industrialisation ;

(ii) To lay down the foundations of socialist transformation of agriculture and handicrafts ;

(iii) To lay down the foundations for the socialisation of private industry and commerce.

Principles of the I Five-Year Plan.

(i) To establish and expand power, coal, iron and steel, nonferrous metals, basic chemicals and machine-building industries for the manufacture of large metal-cutting machine-tools, power-generating metallurgical and mining equipment, motor vehicles, tractors and aircraft ;

(ii) To develop to an appropriate extent textiles and other light industries as well as new small and medium industrial enterprises serving agriculture in order to supply the growing needs of the people;

(iii) To utilise the existing industrial enterprises in the fullest and most suitable way and to develop their productive potential ;

(iv) To bring about the gradual cooperativisation of agriculture through the setting up of agricultural producers' cooperatives as the main form of organisation and to attend to water conservancy and fisheries and raise the output of special farm products ;

(v) To develop transport and post and telecommunications in keeping with the expansion of the national economy, railway construction being of the first importance ;

(vi) To organise individual handicrafts stage by stage into the various forms of cooperatives ;

(vii) To continue to consolidate and extend the leadership of socialist economy over capitalist economy ;

(viii) To ensure the stability of the market by balancing state revenue and state expenditure, by increasing the exchange of goods between town and countryside, between home and abroad, and expand the circulation of commodities in step with the growth of industrial and agricultural production;

(ix) To develop cultural, educational and scientific research work and to train personnel needed for national construction ;

(x) To practise strict economy, eliminate waste and increase the rate of accumulation of capital for national construction ;

(xi) To steadily improve the material well-being and cultural standard of the working people on the basis of development of production and a rise in labour productivity ;

(xii) To continue to strengthen economic and cultural mutual aid and coöperation between the various nationalities of China ;

Size of Investment Outlay and its Distribution

During the five-year period, the State was to make an investment of 76,640 million yuans for economic construction, and cultural and educational development. Out of this total, 74,130 million yuans were direct State appropriations while 2,510 million yuans were to be furnished by the various economic departments under the central authorities and the provincial and municipal administration themselves.

This sum of 76,640 million yuans for investments is distributed among the various heads as follows :

Table[5]

Name	*Million Yuans*	*Percentage of total*
Industrial departments.	31,320	40.9
Agricultural, water conservancy, and forestry departments	6,100	8.0
Transport, Post and Tele-communications departments	8,990	11.7
Trade, Banking and Stock Piling departments	2,160	2.8
Cultural, Educational and Public Health departments	4,270	18.6
Urban Public Utilities	2,120	2.8
Circulating capital for economic departments	6,900	9.0
Overhaul of equipment in economic departments	3,600	4.7
Other economic items	1,180	1.5

From this table, it is evident that the total State development outlay on industry was 31,320 million yuans which amounted to 40·9% of the aggregate outlay. Of this amount, 24,850 million yauns or over 79% was for above-norm projects and the rest for smaller projects. (The Chinese Government had set an "investment norm" (limit) for every category of capital construction. Any project calling for an investment above this limit is referred to as an *above-norm* project and that calling for an investment less than the limit is referred to as *below-norm* project). The various economic departments were to receive 42,740 million yuans or 55.8% for capital construction out of the above aggregate investment outlay for economic

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5. *Report of the Indian Delegation to China on Agricultural Planning and Techniques*, p. 56.

construction and cultural and educational development. An additional 5300 million yuans was to be invested in capital construction by various departments according to the needs of their yearly plans for construction. If this sum of 5300 million yuans is added to the 42,740 million yuans for capital construction mentioned above, the total investments of the State under the five year capital construction programme will constitute 62.7% of the total national expenditure on economic construction and cultural and educational development. Part of the remaining 37.3% of the investment expenditure was to be used by various economic departments as circulating capital and for overhaul of equipment.

The sum of 42,740 million yuans for investments in capital construction was to be distributed as follows :

Distribution of Investment in Capital Construction

(in million of yuans)

		Percentage of the total
Industrial departments	24,850	58.2
Agricultural, water conservancy, and forestry departments	3,260	7.6
Transport, Post & Telecommunications	8,210	19.2
Trade, Banking & Stock piling departments.	1,280	3.0
Cultural, Educational & Public Health departments	3,080	7.2
Urban Public Utilities	1,600	3.7
Other items	460	1.1

As is obvious from the above table, the largest amount was to be spent on capital construction in industry, constituting 58.2% of the total capital expenditure in the I Plan. In addition to the above sum of 24,850 million yuans, another sum of 1770 million yuans was to be invested in industrial capital construction by ministries other than the ministries in charge of industry. Thus the total investment in industrial capital construction during the five-year period was to be 26,620 million yuans. This sum, however, is exclusive of the investment which was to be made by the private and the state-private industrial enterprises. Nearly 88.8% of this amount of 26,620 million yuans was to be invested in industries manufacturing means of production while 11.2% was to be invested in consumer goods industries. It is thus evident that the Chinese government gave topmost priority to heavy industries *firstly* on the ground that the expansion of the heavy industrial base was necessary to promote an all-round development of the national economy, *secondly*, because China's light industries had still considerable unused capacity which could be used to meet the peoples' requirements while the resources were applied to heavy industries. The Chinese authorities, therefore, used exactly the same technique (the technique of unbalanced growth) which Soviet Russia employed in her formative years.

As regards capital construction in industry, the I Five-Year Plan provided for 694 above-norm construction projects. These included 145 projects designed with the help of the Soviet Union. While extending existing industrial bases or building new ones, care was to be taken to avoid over-concentration to bring about a proper geographical distribution of industrial capital construction. The idea was to build up new industrial bases in hitherto neglected areas like the North, North West and Central China.

Production Targets. The principal industrial targets were as follows :

	Product	Output in 1952		Target for 1957		%age increase (1952=100)
1.	Electricity	7,260 million KWH		15,900 million KWH		219
2.	Coal	63,528,000	tons	112,985,000	tons	178
3.	Crude oil	436,000	,,	2,012,000	,,	462
4.	Pig-iron	1,900,000	,,	4,674,000	,,	246
5.	Steel	1,350,000	,,	4,120,000	,,	306
6.	Steel products	1,110,000	,,	3,045,000	,,	275
7.	Metal-cutting machine tools	16,298		29,292		180
8.	Locomotives	20		200		1000
9.	Cement	2,860,000	,,	6,000,000	,,	210
10.	Cotton piece-goods	111,634,000	bolts	163,721,000	bolts	147
11.	Sugar	249,000	tons	686,000	tons	276
12.	Paper (machine made)	372,000	,,	655,000	,,	176

As regards steel, work was to start on 15 above-norm construction projects for the iron and steel industry. These included three major steel plants such as the Anshan Iron and Steel Works, Wuhan Iron and Steel Works and Paotow Iron and Steel Works. The expansion of the non-ferrous metals industry such as copper, lead and zinc was also one of the important tasks of industrial construction under the I Five-Year Plan. It was expected that by 1957 the state enterprises would be producing almost all the principal non-ferrous metals used in China. As regards power, the construction of 107 above-norm power projects was to begin in the five-year period. The Fengman Hydro-electric Power Station—the biggest in China, was to be radically reconstructed with the help of the Soviet Union during the plan period. In the coal industry, construction was to start on 194 above-norm projects during the five-year period. As regards oil industry, it was decided to give a high degree of priority to oil prospecting while making an intensive, long-term effort to expand the oil industry as a whole. Work was to start on 13 construction projects during the plan period. The plan also put a great deal of emphasis on increasing the production of metallurgical, power-generating and mining equipment and transport and agricultural machinery. In the light industries section, work was to begin on 53 above-norm construction projects in the textile industry.

Following were the agricultural targets of the I Five-Year Plan :

(In million of catties)*

Products	Total output in 1952	Total output in 1957	Ratio of 1957 to 1952 (per cent)
Foodcrops	327,830	385,620	117.6
Cotton	2,610	3,270	125.4
Sugarcane	14,230	26,350	185.1
Cured tobacco	440	780	176.6

By 1957, the area sown to all crops throughout the country was to amount to 2,273,771,000 *mou*, an increase of 154,934,000 *mou* compared with 1952. The number of State farms was expected to be 3038 by 1957 with 16,872,000 *mou* of cultivated land-11,932,000 *mou* more than in 1952. As regards irrigation, the total irrigated area was to increase to 72 million *mou*, of which about four million *mou* would belong to state farms.

The volume of traffic and traffic mileage of the principal branches of transport was expected to increase as follows between 1952 and 1957. Railway freightage would be 245,500,000 tons, a 85.9% increase over the 1952 figure; freight mileage would be 120,900 million ton-kilometres, a 101% increase. Inland shipping would handle 36,864,000 tons of freight, a 294.6% increase; freight mileage will be 15,292 million ton-kilometres or 321.5% increase; motor-lorry transport would handle 67,493,000 tons of freight, a 225.8% increase; freight-mileage will be 3211 million ton-kilometres, a 373.5% increase.

As regards new railway construction, 4084 kilometres of new trunk lines and branch lines would be built.

With an increased output of industrial and agricultural products and the growth of the peoples' demand for them, the total value of the country's retail trade in 1957 would rise to approximately 49,800 million yuans, *i.e.*, about 80% more than in 1952. The total volume of China's foreign trade would be 66.5% greater than in 1952.

The productivity of labour in China has gone up since liberation. In the I Five-Year Plan, due importance has been given to improvement of labour productivity because increased labour productivity not only results in expansion of production but also leads to a reduction in costs. Labour productivity was expected to increase by 64% in state-owned industries by 1957. This

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*Source : *I Five-Year Plan for Development of the National Economy of the Peoples' Republic of China in* 1953-57, p. 115.

compares very favourably with the 41% rise in labour productivity in Russia under the I Five-Year Plan.

In the I Five-Year Plan period, the average wage of the Chinese workers was to be increased by about 33%. The targets of Socialist transformation for the various branches of the national economy were as follows:

(i) *Industry.* Incorporation of half the private industrial capacity into jointly-owned enterprises and the reduction of the private sector's share of gross industrial output to 12.2%.

(ii) *Agriculture and Handicrafts.* 33% of the peasants and about 25% of the individual handicraftsmen would join producers' cooperatives—mainly semi-socialist ones.

(iii) *Commerce.* Complete absorption of wholesale trade by state and joint enterprises and the reduction of purely private retailing to 21% of the total retail sales.

Financing of the I Five-Year Plan. The official version of China's I Five-Year Plan does not specify as to how the big amount of 76,640 million yuans to be invested during the plan period was to be obtained. What sources were to be tapped for obtaining this sum? One thing, however, is clear. China's economic and social development was to be financed primarily by domestic capital accumulation, although external assistance from Soviet Russia was also an important factor to reckon with. It is said that Russia made a loan of 520 million roubles in 1954, in addition to an earlier one, and both of these loans were spent on investment goods. Besides, the liquidation of foreign capitalists, the landlords and the domestic capitalists also brought a sizeable amount of capital in the hands of the State which was utilised for developmental purposes. The other main sources of revenue (the proceeds from which were used for developmental purposes) included profits of state-owned enterprises, state trading corporation, industrial and commercial taxes and bonds. The main industrial and commercial taxes include business tax, commodity tax, customs duty, salt tax etc. Financial resources for development are raised annually through the State budget. As regards deficit financing, there appear to be differences among Indian economists as to its use by the Chinese authorities. Dr. K. N. Raj says, "there have been gaps between income and expenditure of the Chinese Government, though these have been concealed in various ways"[6]. Dr. Gyan Chand, who actually visited China sometime back, is emphatic in saying that "there has been inspite of enormous development expenditure in China no deficit financing. Since 1952, all budgets have been surplus.........there has been no price inflation, prices having been remarkably stable since 1952"[7]. Whatever the truth, it is a fact that there has been no appreciable rise in the internal price-level in China since 1952. Part of this is due to the nationalisation of the wholesale trade and the prohibition of speculation.

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6. K. N. Raj—*The Indian and Chinese Plans, Economic Weekly,* 23rd June 1956.
7. Gyan Chand—*The Indian and Chinese Plans, Economic Weekly,* 15th Sept. 1956.

Progress of the I Five-Year Plan[8]—In the words of Chou-En-Lai, "the achievements (of the Plan) are tremendous, but there have also been some defects and errors" which need to be corrected.

In regard to capital construction—The investment in capital construction during the five-year period (1953-57) amounted to a total of 48,777 million yuans, an increase of 14.1% over the total investment laid down in the original plan. By the end of 1957, some 500 newly built or reconstructed above-norm industrial enterprises were expected to be completed. The industrial base in the North-East, with the Anshan Integrated Iron and Steel Works as its core, was to be greatly strengthened. In inner Mongolia, North-West China and North China, many new industrial cities were to take shape. The length of railways newly built or restored within these five years was expected to reach some 5500 kilometres. Important highways such as the Sikang-Tibet and Chinghai-Tibet had been completed and opened to traffic. The many completed water conservancy projects had also begun to play a definite part in preventing floods and irrigating farm land. Chou-En-Lai, however, pointed out that some construction units concerned themselves only with speed and overlooked quality and safety.

In regard to industrial front—The total value of industrial output had exceeded the value set in the annual plan. In 1956, it reached the level set for 1957 in the Plan. The total value of industrial output in 1957 was estimated to reach 62,810 million yuans exceeding the original plan by 4.1% and representing an increase of 6.9% over that of 1956. As to the output of major industrial projects, the overwhelming majority of them surpassed the planned targets in 1957. These were steel, electricity, metal cutting machine tools, power-generating equipment, cotton yarn, machine-processed sugar and machine-made paper. The country was able to manufacture several new industrial products such as power-generating, metallurgical and mining equipment, motor vehicles and jet planes. During the plan period, inferior quality and lack of variety were two major problems in respect of the products of certain light industries. These were primarily due to a low technical level and the pressure to achieve the planned targets.

In regard to agricultural front—Despite the several natural calamities that China suffered in 1953, 1954, and 1956, it was possible in 1957 for the main grain and certain industrial crops to exceed the targets set in the original plan. The grain output reached a total output of 370,000 million *catties*; cotton reached a total of 32,800,000 *tan* in 1957. The total value of agriculture and its subsidiary occupations amounted to 60,350 million yuans

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[8] This account is based on the following publications :

(i) *Report on the Draft Plan for the Development of the National Economy in 1958 by Po-I-Po*, Chairman of the National Economic Commission.

(iii) *Report on Proposals for the II Five-Year Plan for the Development of the National Economy* by Chou-En-Lai.

(iii) *Report on the Implementation of the State Budget for 1957 and the Draft State Budget for 1958* by Li Hsien-Niem, Minister of Finance.

(in terms of constant prices of 1952) in 1957 exceeding the planned target for 1957 by 1.2%. The grain yield targets laid down in the revised draft plan were achieved ten years ahead of schedule. But soyabeans, pea nuts, rapeseed, jute and certain kinds of livestock were not able to achieve the original targets.

It is worth mentioning that the pace of agricultural cooperativisation was exceedingly rapid during the plan-period. After the land reforms and the re-distribution of lands effected prior to 1952, the objective in the I Five-Year Plan was to bring about a gradual cooperativisation of agriculture through the setting up of agricultural producers' cooperatives. This cooperativisation was, however, to be achieved through certain well-defined stages :

(i) *Individual farm cultivation*—land purely private property; unit—a single peasant household.

(ii) *Individual farmers joining in seasonal mutual aid teams*—to reap the advantages of division of labour and of large-scale production but there was to be no common property; unit 3 to 5 households.

(iii) *Individual farmers joining the year-round mutual aid teams*—little common property in animals and implements; unit 6 to 7 peasant households.

(iv) *Semi-socialist producers' cooperatives*—unit 20 to 50 households—ownership in land, implements and animals partly individual and partly collective.

(v) *Socialist producers' cooperative or collective farms*—unit 100 households or above; ownership in land, animals and implements fully collective.

The (v) is thus full collective farming and the income of the members is determined solely by their labour contributions, though they may supplement their earnings by working in individual side-occupations.

In December 1953, it was decided by the Chinese government to accelerate the development of agricultural co-operatives. From then onward, the cooperative movement made an amazing progress in the years 1954, 1955, 1956. By June 1956, 91.7% of the rural households (the no. of peasant households in cooperatives reached 110 million, of which 75 million were members of advanced cooperatives) had been covered by the agricultural cooperatives. The movement made so swift a progress that not all the peasants passed through all the stages detailed above. Many of them had directly joined a cooperative of primary type without passing through intermediate stages. The Report of the Indian Delegation to China on Agrarian Cooperatives (May, 1957) says, "The point we want to emphasise here is that in its final stages during the "surging tide" period, the organisation proceeded like a mass movement, as if the whole nation had been caught by an idea" (p. 37). In addition, there was a good deal of technical progress also recorded in Chinese agriculture. The quality of seeds was improved and standardised. Methods of cultivation were also improved. There was close planting and deep ploughing to prevent evaporation. Inter-row cultivation and grass-field rotation were also extended. The use of fertilisers increased, incidence of locust plagues reduced and cattle diseases brought under control.

In regard to communications and transport front—Alongside, the development of industrial and agricultural production and the expanding scale of capital construction, there had been an annual increase in the volume of traffic and of business handled by the Chinese posts and telecommunications. In 1957, a total of more than 1100 kilometres of new lines and double track lines were laid in railway construction work. Great engineering projects which attracted world-wide attention—the Yangtse River Bridge, the Paochi-Chengtu Railway and the Yingtan-Amoy Railway etc. were completed. With the completion of the Yangtse River Bridge the two trunk lines, the Peking-Hankow and Canton-Hankow have been linked and the long-cherished dream of the Chinese people to span the Yangtse has been realised. At the same time, railway, highway, inland shipping and coastwise transport plans were all, overfulfilled in 1957. There was also a rapid and sustained increase in the extent and efficiency of railway operations.

In regard to the commerce front—The sphere of socialist commerce was constantly enlarged and consolidated. The State assumed a prominent position both in the wholesale and retail trades, and as such there was a rapid growth in both the wholesale and retail trades. The total volume of retail sales in 1957 was 500 million yuans more than in 1956. At the end of 1957, commercial departments held stocks of retail commodities worth over 2000 million yuans more than at the beginning of 1956. In the field of foreign trade, the total value of imports and exports planned for 1957 was exceeded by 4%. Chou-En-Lai admitted that the chief defect in commercial work was that the supply of commodities was unsatisfactory. This had created overstocking of some goods at one time and shortage at another.

In regard to the cultural and educational front—Compared with 1956, the number of students in institutions of higher learning in 1957 increased by 9.7%, those in secondary schools by 15%. The number of beds in hospitals increased by 11.7% as compared with 1956. Progress was achieved in cultural services and publications.

In regard to the pace of socialist transformation—By the end of 1957, cooperation in agriculture and handicrafts was virtually universal throughout the country except for a few border areas. By 1957, almost all the capitalist industrial enterprises had come under joint state-private operations—thus preparing the way for the full-scale nationalisation of the capitalist means of production.

In regard to wages—The average wages of the workers and employees in 1956 were 33.5% higher than in 1952, thus surpassing the 33% increase in five years laid down in the I Five-Year Plan. The increase of labour productivity also exceeded the original target. In the state-owned industrial enterprises, for instance, labour productivity was 70.4% higher than in 1952, thus surpassing the 64% increase in five years stipulated in the I Five-Year Plan. The total income of the peasants increased by about 30% in five years.

In regard to the financial front—During the I Five-Year Plan period, the Chinese finances had been greatly strengthened and consolidated. For the whole period of the I Five-Year Plan, total revenue was 136,562 million yuans and total expenditure was 136,409 million yuans. The excess of revenue over expenditure was thus 153 million yuans. Compared with the original financial plan for the 5-year period, the actual revenue in the 5 years was 104.2% of the 130,941 million yuan, the planned figure and actual expenditure in the 5 years was 106.4% of 128,206 million yuan, the planned figure. In 1952, state revenue from the socialist economic sectors-state and joint state-private enterprises and cooperatives-made up 60.1% of the total; it rose to 95% in 1957. In expenditure, that for national construction which constituted 59% of the total in 1952, rose to 64.17% in 1957.

We thus reach the conclusion that the basic tasks and major targets laid down in China's I Five-Year Plan were fulfilled or overfulfilled in every respect. This does not, however, mean that mistakes were not committed by the Chinese authorities. Far from concealing them, Chou-En-Lai clearly admitted them in his Report to the Eighth National Congress of the Communist Party of China on September 16,1956.

Firstly, he said, "we should set the long-term targets in a comparatively realistic way and leave it for the annual plans to make the necessary adjustments...in our annual plans of 1955 and 1956 we erred on the side of setting the targets too high or too low, which gave rise to certain difficulties in our work".

Secondly, "we should coordinate key projects with over-all arrangements so that the various branches of the national economy can develop proportionately".

Thirdly, "we should build up our reserves and perfect our system of stockpiling materials. Loss of balance is bound to occur frequently as our national economy develops. Hence we must lay aside the necessary reserves of materials, financial resources, mineral resources, productive capacity etc." Chou-En-Lai admitted that "in 1955 when there was a small surplus of certain materials, we injudiciously exported part of them".

Fourthly, "the relationship between economy and finance should be correctly handled. Years of experience tell us that our financial revenue must be based upon our economic development, and our financial expenditure must also, and above all, ensure the development of our economy. Thus, we should first of all consider the economic development plan, particularly the plan for industrial and agricultural production. Then, basing ourselves on it, we should draw up the financial plan, with which to ensure the successful carrying out of the economic plan". He thus put in a strong plea for physical planning. He also said that "many of the shortcomings and mistakes are inseparable from subjectivism and bureaucracy among the leadership...... consequently, the overcoming of subjectivism and bureaucracy is of especially great importance".

China's II Five-Year Plan (1958-62)[9]

Objectives—The objective of the II Five-Year Plan is to promote socialist construction and complete the process of socialist transformation of the economy so as to ensure that, in approximately 3 five year plans, the country could, in the main, build up a comprehensive industrial system and transform the backward agricultural country into an advanced socialist industrial country. In the light of this long-term objective, the principal tasks of the II Five-Year Plan were to be (i) to continue industrial construction with heavy industry as its core and promote technical reconstruction of the national economy, and build a solid foundation for socialist industrialisation, (ii) to carry through socialist transformation and consolidate and expand the system of collective ownership and the system of ownership by the whole people, (iii) to further increase the production of industry, agriculture and handicrafts and correspondingly develop transport and commerce on the basis of developing capital construction and carrying through socialist transformation (iv) to make vigorous efforts to train personnel for construction work and strengthen scientific research to meet the needs of the development of socialist economy and culture, and (v) to reinforce the national defences and raise the level of the peoples' material and cultural life on the basis of increased industrial and agricultural production.

Principles—The following principles and measures were to be adopted to guarantee the fulfilment of the above-mentioned tasks.

(i) The total value of industrial and agricultural output was to show an increase of about 75% as compared with 1957 (the last year of the I Plan).

(ii) The value of industrial output (including modern industry and handicrafts) was to be about double the planned figure for 1957 and that of agricultural output was to increase by about 35% of the planned figure of 1957.

(iii) In the II Five-Year Plan period, the rate of increase in the value of industrial output would still be faster in capital-goods industry than in consumer-goods industry.

(iv) Compared with 1957, it would be possible to increase the national income by about 50% in 1962. In the distribution of the national income, a correct proportion was to be maintained between consumption and accumulation and the rate of accumulation was slightly to exceed that of the I Five-

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[9] Account based upon the Proposals of the 8th National Congress of the Communist Party of China of the II Five Year Plan for Development of the National Economy (1958-62).

Year Plan period so as to speed up socialist construction and ensure gradual improvement of the peoples' livelihood.

(v) To reduce, as far as possible, national defence and administrative expenditures and to increase expenditure on economic construction and cultural development so as to ensure the rapid advance of socialist construction. Under the I Five-Year Plan, 56% of the total expenditure went to economic construction and cultural development. This was to be raised to between 60 and 70% under the II Five-Year Plan.

(vi) The proportion of State investments in capital construction during the II Plan could be raised from about 35% of all State expenditure in the I Five-Year Plan to about 40% so as to speed up socialist construction. In order to ensure a rapid development of industry and agriculture, the proportion of capital construction investments in industry by the State was to be raised from 58.2% under the I Five-Year Plan to about 60% under the II Five-Year Plan; the share of capital construction going to agriculture, forestry and water conservancy was to increase from 7.6% to about 10%.

Industry-Production Targets of Heavy Industries—The central task of China's II Five-Year Plan was still to give priority to the development of heavy industry. Following are the principal targets of heavy industry:—

Product	*Unit*	*Target for 1957*	*Target for 1962*
Electricity	100,000,000 KWH	159.0	400-430
Coal	10,000 tons	11,298.5	19,000-21,000
Crude oil	10,000 ,,	201.2	500-600
Steel	10,000 ,,	412.0	1050-1200.0
Aluminium ingots	10,000 ,,	2.0	10-12
Chemical fertilisers	10,000 ,,	57.8	300-320
Metallurgical equipment	10,000 ,,	0.8	3-4
Power-generating equipment	10,000 Kw	16.4	140-150
Metal-cutting machine tools	10,000 units	1.3	6-6.5
Cement	10,000 tons	600.0	1250-1450

Vigorous efforts were to be made to expand the machine building industry and the metallurgical industry to meet the needs of national construction.

Production Targets for Light Industries—While giving priority to the development of heavy industry, it was also decided to suitably speed up the growth of light industry so as to meet the growing needs of the masses for consumer goods. Following are the principal targets of light industry:

Product	*Unit*	*Target for 1957*	*Target for 1962*
Cotton Yarn	10,000 bales	500.0	800-900
Cotton piece-goods	10,000 bolts	16,372.1	23,500-26,000
Salt	10,000 tons	755.4	1000-1100
Edible vegetable oils	10,000 ,,	179.4	310-320
Sugar (including hand-made)	10,000 ,,	110.0	240-250
Machine-made paper	10,000 ,,	65.5	150-160

Efforts were to be made to produce a greater variety of light industrial goods, to improve quality and reduce costs, so as to produce low-priced, high-quality goods. It was also decided to establish new industrial bases, as far as possible, in the interior to achieve a balanced development of the economy. Attention was also to be directed to achieving co-ordination between large, medium and small-sized enterprises and to their proper dispersion geographically. Geological work was to be improved and expanded so as to collect additional data concerning mineral deposits.

Agriculture—During the II Five-Year Plan, increase in the output of grain was to be given a high priority. At the same time, increased production of major industrial crops especially cotton and soyabeans was to be ensured so as to propel the development of light industry. It was also decided to encourage a diversified rural economy and to bring about a considerable expansion of stock-breeding, forestry, fisheries and subsidiary cottage occupations. Following are the main agricultural targets:

Product	*Unit*	*Target for 1957*	*Target for 1962*
Grain	10,000,000 *Catties.*	3631.8	5000
Cotton	10,000 *tan*	3270.0	4800
Soyabeans	100,000,000 *catties*	224.4	250

Agricultural producers' co-operatives should check over and consolidate their organisations, train and promote various types of cadres and strengthen management and the organisation of production. Where the collective work of the co-operatives is not affected, the members may be allowed the necessary time off to work in their individual interests.

Vigorous efforts were to be made to build water-conservancy projects, to prevent floods and to drain water-logged areas and to extend the work of water and soil conservation. Wastelands were to be reclaimed in the North-east, North-west and South China and the area under cultivation expanded.

Transport and communications—In order to cope with the needs of industrial and agricultural production and of national defences, it was decided to suitably expand transport, postal and tele-communication services and to build more new railways and highways, postal and telecommunications lines and water and air transport. It was required that 8000-9000 kilometres of new railways be built in five years. It was also required that 15000-18000 kilometres of trunk highways be constructed or reconstructed in these five years.

Commerce—It was required that the volume of retail trade in 1962 be about 50% greater than in 1957. There was to be a corresponding increase in sales by state trading concerns and co-operatives of daily necessities such as grain, meat, aquatic products, edible vegetable oils, sugar, cotton piece-goods, kerosene etc. to the people in the town and the countryside. It was decided to maintain stable commodity prices and gradually readjust unfair prices. An important decision was that, in addition to the state markets, some free markets should be maintained or developed to promote a brisk commodity exchange between town and countryside. It was also decided to secure a balance between the country's imports and exports through an improvement in the efficiency of the state trading establishments.

Living standards—The living standards of the people were to be raised step by step on the basis of increased production. The target for raising productivity of labour was 50% in the II Five-Year Plan. The average wages of workers and employees were to go up by 25 to 30% in these five years. The working hours of workers and employees, working under conditions harmful to health, were to be suitably reduced. More attention was to be paid to improving housing conditions of workers and employees and building more houses as conditions permitted. Practical measures were to be taken to improve labour protection, sanitation and safety devices in factories and mines. In these five years, as agricultural production grew, the total income of the peasants would probably go up by about 25 to 30%. Public health work was to be further expanded in the II Five-Year Plan.

Technique, research, education—It was planned to use the latest and the most up-to-date type of technique in all the sectors of the national economy particularly the field relating to heavy industries. Due attention was to be paid to develop scientific research in the most advanced branches of science such as atomic energy, electronics and automation. It was also decided to carry through the Communist Party's policy of uniting with, educating and remoulding the intellectuals and the principle of "letting diverse schools of thought contend" and encourage them to cultivate independent thinking and engage in free discussion. Efforts were to be made to wipe out illiteracy throughout the country. It was decided to adhere to the principle of "letting flowers of many kinds blossom" and fostering art, literature and creative work in every possible way.

China's Economic Plan for 1958—Annual planning, as already explained, holds a vital place in the Chinese System of Economic Planning. We give below a resume of China's Plan for 1958[10].

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[10] Based on "Report on the Draft Plan for Development of National Economy in 1958" delivered at the 5th Session of the First National Peoples' Congress by Po-I-Po, Vice-Premier & Chairman of the National Economic Commission.

The main objective of the 1958 Economic Plan was to ensure a new "leap forward" in the onward march of the Chinese economy.

Capital Construction—The total investment in capital construction in 1958 was fixed at 14,577 million yuan (exclusive of capital investment to be made by cooperatives) which was 2200 million yuans or 17.8% greater than the estimated figure for 1957. So the speed and scale of capital construction in 1958 was to exceed by far those of any previous year.

Agriculture—The total value of agriculture and its subsidiary occupations was estimated to be 68,830 million yuans (in terms of the constant prices of 1957) or 6.1% greater than in 1957. The target for output of grain in 1958 was set at 392,000 milllon *catties* which was 22,000 million *catties* or 5.9% more than last year. The target for cotton was fixed at 35 million *tan*, which was 2,200,000 *tan* or 6.7% more than last year. The total acreage of cultivated land was planned to reach 1,692,450,000 *mou* more than last year. The total irrigated area would be more than 600 million *mou*.

Industry—The total value of industrial output in 1958 was fixed at 64,370 million yuans (in terms of constant prices of 1957) which was 8190 million yuans or 14.6% greater than the estimated figure in 1957. The total value of handicraft output was estimated to be 10,370 million yuans. In the total value of industrial and handicraft output, the value of the output of the means of production would be 35,660 million yuans, an increase of 18.8% over that of 1957 and that of consumer goods, 39080 million yuans, an inerease of 9.7% over that of 1957.

Energetic steps were to be taken to push up production of fuel, electricity and raw materials. For example, the output of steel was set at 6,284,000 tons, an increase of 19.2% above 1957; electricity at 22,450 million KWH, an increase of 18%; and coal at 150,724,000 tons, an increase of 17.2%. There would be an increase of more than 50% in the production of power generating sets, electric motors, nitrogenous fertiliser equipment, motor trucks and locomotives.

There would be an increase of over 10% in 1958 in the output of light industrial products such as cotton yarn, sugar, gunny sacks, paper, bicycles and rubber shoes. Attention was also to be paid to the introduction of more new types and varieties of products.

Communications and Transport—The State was to invest 2200 million yuans in 1958 in capital construction in the field of communications and transport. About two-thirds of this sum was to be used for railway construction where it was planned to lay about 1500 kilometres of tracks, both new and double-tracking existing lines.

Material Well-being of the People, Home and Foreign Trade—The total number of workers and staff covered by the state plan would reach 24,392,000 in 1958 *i.e.*, 419,000 more than the last year. The total wage bill was set at 15,800 million yuans or 550 million yuans more than 1957. The net increase in social purchasing power was to be 2400 million yuans. The amount of commodities which could be supplied was in excess of the social purchasing power. This would ensure stability in the commodity prices.

The total amount of import and export trade in 1958 was set at 11,000 million yuans, representing an increase of 8.6% over that of 1957.

Economic Progress Achieved in 1958 ("A Great Leap Forward")[11]

"The East Wind now prevails over the West Wind"

—(Mao—se—Tung)

The year 1958 saw spectacular achievements in all the sectors of the Chinese national economy. It was a year marked by an outburst of productive activity all around-beyond even the wildest dreams of the Chinese themselves. A big leap unparalleled in Chinese history took place in the development of her national economy.

In 1958, the total value of industrial and agricultural output reached 205,000 million yuans; this was 65% more than the 124,100 million yuans in 1957. The total value of industry and handicrafts amounted to 117,000 million yuans or 66% more than the 70,400 million yuans in 1957. The total value of agricultural output reached 88,000 million yuans ; this was 64% more than the 53,700 million yuans in 1957. Capital investments realised through the State budget totalled 21,400 million yuans or 70% more than the 12,600 million yuans in 1957.

In agriculture, the grain production increased to 375 million tons which was exactly the double of the figure attained in 1957, leading to a rise in the *per capita* annual average of grain for the Chinese people to 1000 *catties*. In wheat production, it is said, China had already outstripped the U.S.A.[12] Never before had such a high rate of growth in food production been achieved elsewhere. The cotton crop increased to 3.15 million tons, almost the double of 1957. The output of tobacco in 1958 was more than a million tons, four times higher than 1957. This record agricultural production also accelerated the simultaneous advance of foresty, animal husbandry, fisheries etc. It also had beneficial effect on light industries through provision of larger supplies of raw materials. This "undreamt of" expansion in agricultural production was not due to favourable weather as some people seem to think. It was due to the following factors:[13] (i) Enlargement of the area under irrigation (ii) Increased application of fertilisers (iii) Deep ploughing (iv) Improved seeds (v) Close planting (vi) Strengthening farm management (vii) Mass enthusiasm.

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[11] *Account based on the Report on the Work of the Government* by Chou-En Lai (May, 1959) published by the Chinese Embassy, New Delhi.

[12] See *Peking Review*, Vol. I, No. 19, dated 8th July, 1958, p. 1.

[13] Tang-Ming-Chao-*China's Agricultural Leap in 1958* published in *China Reconstructs*, November, 1953, p. 4.

A similar trend was to be found in industrial production. Steel, which was a major determinant of economic growth, increased to 11 million tons which was 100% higher than the 1957 figure. In 1958, there were 8000 varieties of steel as against 6000 in 1957. What is surprising is that quite a substantial portion of the increased steel output was obtained through small-sized blast furnaces whose number ran into thousands. The output of coal rose to 270 million tons in 1958 from 130 million tons in 1957, more than double the figure of 1957. In coal production, it is pointed out, China had already outstripped Great Britain.[14] This is partly the result of greater stress on exploiting small local deposits found in 1300 of China's 2000 odd counties. An important feature of coal-mining was the widespread use of the hydraulic method (used in the Soviet Union) in which coal is cut by a high pressure jet of water.[15] As regards electricity, the new generating capacity in 1958 exceeded 2 million kilowatts which was almost as much as the total capacity built during the I Five-Year Plan period and the smaller power stations accounted for nearly half of it. Production of chemical fertilisers in the first half of 1958 was 1½ times that for the same period in 1957. Important in this "leap" were the chemical fertilisers made locally by handicraft methods. The output of crude oil (petroleum) was up by 32% in the first half of 1958 compared with the same period in 1957.

The phenomenal progress achieved in 1958 has shown that the Chinese slogan "Overtake Britain in 15 years" launched in December, 1957 will not be impossible of realisation a few years hence. As already stated, on account of this unprecedented "leap" forward, the combined industrial and agricultural output value increased by 65% compared with 1957. "Such economic development" said Chou-En-Lai addressing the National People's Congress in April, 1959, "could never be achieved under the capitalistic system."[16]

China's Economic Plan for 1959 (Anoth r Gr.at L'ap Forward)[17] :

According to this Plan, a planned rise of 40 per cent would bring the total value of industrial and agricultural output in 1959 to 287,000 million yuans. The share of industry and handicrafts would be 165,000 million yuans and agriculture 12,000 million yuans. Total investment in capital construction for 1959 set out in the State budget is 27,000 million yuans which is 26% more than 1958. The four major production targets were : (i) Steel to be raised by nearly two-thirds to 18 million tons (compared to 11 million tons in 1958) (ii) Coal by about 40% to 380 million tons (compared to 270 million tons in 1958) (iii) Grain including wheat, rice and potatoes by 40% to 525 million tons (compared to 375 million tons in 1958) (iv) Cotton by 50% to 5 million tons (from 3.15 million tons in 1958). To enable the economy to achieve the 18 million ton target for steel (described as the most important task on the industrial front), the 1959 Plan has raised as far as possible production targets for pig iron, coal, electric power and transport. Pig-iron output which amounted to 13,690,000 tons was to rise by more than 50%. The target for power-generating equipment was set at about 3½ times as much as 1958 figure of 800,000 Kwt.

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[14] Peking Radio broadcast.

[15] Yung-Lung-Kwe—*Industry Leaps Ahead* published in *China Reconstructs*, October, 1959, p. 4.

[16] Reuter news item in *Indian Express*, 19th April, 1959.

[17] Based upon Li Fu-Chun's Report to the National Peoples' Congress in April, 1959.

The output of railway locomotives which numbered 350 and railway wagons which numbered 11,000 were to be raised by more than 50%. It was planned to build new railway lines of 5,500 kilometres. This was construed as China's attempt to ease the strain on the country's railway transport system, which was rather finding it difficult to cope with the phenomenal expansion of agricultural and industrial production in 1958.

In the textile industry, the output of cotton yarn and cotton cloth which fell below expectations in 1958 was to rise by greater percentage in 1959. The output of cotton spinning machines was also to go up by more than half.

In agriculture, the 1959 Plan calls for bigger increase in crops of rapeseed and sugarcane which fell below the original 1958 expectations. Both were to rise by more than 40%. Production of edible oils made from rape seed was to increase by 40%. Sugar which at 900,000 tons showed a rise of only 4% in 1958 over the previous year and was in short supply in the city markets, was to go up by more than half. The Plan calls for bigger increase in livestock population compared with 1958. Jute and hemp which increased only by 8% in 1958 was to be increased by more than 40%.

Retail sales of commodities on home markets would amount to 65,000 million yuans—thus increasing by 19% in 1959.

While addressing the National People's Congress in April, 1959, Chou-En-Lai urged the continuation in science and art of "letting a hundred flowers blossom and a hundred schools of thought contend".

We, thus, see that the investment and production targets proposed for 1959 are higher in every way than those of 1958 and if the 1959 Plan materialises and there is no reason why it should not in view of the mass enthusiasm of the people and strong leadership at the helm, China will have taken a still bigger leap forward on the road to economic progress and prosperity.

Peoples' Communes in China

"Our Commune has been set up,
Our output soars,
Oh, how glad we are,
To belong to the Commune"—*Liu Yung*

About the middle of 1958, the Chinese government initiated another revolution which, it is claimed, should make China not only the most economically advanced Asian country but one of the great powers of the world. The

Chinese authorities set about organising China's 650 million people, one-fourth of humanity into communes designed to obtain startling economic results within a decade or so and taking the country in one stride from socialism to communism. The Chinese government consider this to be the best form of socio-economic organisation to abbreviate China's transition from socialism to communism.

At present, there were about 24,000 Peoples' Communes of varying sizes spread all over the countryside, affecting a little over 90% of the peasantry. Even towns and cities are included in this network of communes. The Chinese government plan to communise the whole of China by 1959.

A peoples' commune is quite different from an agricultural producers' cooperative. It may consist of anything from 4000 to 10,000 families in a particular compact area. The work of the commune is conducted by an administrative council which organises agriculture, industry, education etc. in that area according to party directives. Each commune has its collective farm, factories, schools, shops etc. all controlled and run by the administrative council. Each adult residing in the commune is allotted a definite piece of work to do. Even women are expected to work side by side with men. To save the women from domestic drudgery, there are communal kitchens run by the commune where meals are served to all the residents free of payment. Of course, the individual adults working in the communes are paid wages for the work done by them. There are communal nurseries and kindergartens where women workers can deposit their children before going to work. The children quite naturally receive social and collective education in these nurseries and kindergartens. The old and the infirm are specially looked after in the "homes of respect for the aged" run by the communal authorities. There are even holiday homes for the recreation and entertainment of workers and peasants.

The peoples' communes perform all sorts of economic functions in their respective areas. They conduct not only agriculture but also develop several types of side-industries ancillary to agriculture. They even engage themselves in the construction of water conservancy projects. The larger communes in urban areas initiate, develop and carry on several types of industries such as textiles, sugar, paper, fertilisers, chemicals and machine building etc. As a result of these communes, the efficiency of work is reported to have gone up both in agriculture and industry. There is a better division of labour and the use of more rationalised methods of production. Better and more effective agricultural implements are being used by the members of co-operative farms. The communes are reported to have led to a new upsurge of productive activities in the rural areas.[18] They are also reported to be carrying on a ceaseless and ruthless campaign to step up agricultural production in 1959. It can be presumed that these communes must have played a vital role in bringing about the "outburst of productivity" in 1958.

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[18] The Changshih Peoples' Commune, during nine months of its existence, was able to more than quadruple the value of its agricultural and industrial production, the value having risen from 2·37 million yuans in 1957 to 13 million yuans in 1958. Per *mou* yield of late rice jumped from 219 *jin* in 1957 to 1717 *jin* in 1958. The members bought six times more consumer goods in 1958 than they did in 1957. Personal savings deposits in the commune's credit department have risen more than 5 times. (*Spotlight on a Peoples' Commune* by Chao Yu-Li published in *China To-day*, 21st March, 1959.)

The system of peoples' communes has, however, provoked bitter criticism outside China, particularly in western countries. The late Mr. John Foster Dulles dubbed it "as a backward system of mass slavery organised on semi-military lines". "Under it", he added, "the human being was sought to be denied individuality and personality......He or she is treated as a mere material unit valued only as a labourer for the State. He loses not only what little property his masters had not already acquired; he loses his home and his family". While rebutting these allegations, Premier Chou-En-Lai, addressing the National Peoples' Congress in April, 1959, said "The bosses of the western bourgeoisie can make as much noise as they like. Our workers and peasants have lost nothing but the freedom to be unemployed and to strave" (Reuter) Tao Chu, First Secretary of Kwangtung Communist Party while addressing a press conference, answered the three main charges levelled against the communes thus : To the first charge that the peoples' communes were destroying and abolishing the family, Tao Chu replied in the negative. "What is to be destroyed is the patriarchal family left from feudal society and the family of capitalist society built on cash relations". To the second charge that communes put emphasis on organisation and discipline and hence deny freedom to the individual, Chu replied, "......there is no such thing as absolute freedom. You cannot dispense with organisation and discipline unless you live like Robinson Crusoe, on an uninhabited island". He asks: Do not the workers under capitalism work with discipline and in an organised way ? To the third charge that communes force the workers to work regularly through the nights without sleep, Chu replied, "it is in direct contradiction with common sense and physiology and is hardly worthy of refutation. It is unthinkable that a person can work continuously without rest".

It is difficult to evaluate or appraise the western criticism of peoples' communes because the factual information available at present is extremely inadequate, sketchy and disjointed to enable any scientific conclusion to be drawn. One suspects, therefore, that the western criticism springs more from ideological prejudice than the desire to be objective in evaluating a novel and unprecedented experiment.

An Appraisal of Chinese Planning

Before we close, it would be necessary to have a brief appraisal of the Chinese planning efforts during the last nine years or so. We have already referred to the amazingly high rate of expansion in agricultural and industrial production during all these years, particularly in 1958. Professor Solomon Adler has truly observed that the three outstanding characteristics of Chinese economic development in recent years have been its *speed*, *scale* and *peacefulness*.[19]

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[19] Solomon Adler—*The Chinese Economy* (1957), p. 236.

As regards the speed and scale of development, we do not think any doubt would still persist in the readers' mind after going through all what has been said above. The year 1958, as we have already stated, recorded an unprecedented economic growth in China. Even if we disbelieve the official statistics supplied by Peking (for which there does not seem any cogent reason to us) we have the authoritative and impartial testimony of some of the western experts (who actually visited China) regarding the "great leap forward" made by the country in agricultural and industrial production. One western economist went as far as saying that "the Chinese harvest is the event of 1958 even as the Russian *Sputnik* was of 1957". The Chinese harvest in 1958 registered roughly a 90% increase over that of 1957, a record which even the U. S. A. did not achieve during the most rapid period of its agricultural growth. In a like manner, China achieved unprecedented gains in the industrial field, particularly in steel production where the original targets set by the planners lost all their relevance and meaning as time rolled by. And these gains are much too systematic to be explained by fortuitous or sporadic causes. They were the direct result of the unleashing of productive forces on a scale unprecedented in the history of China or of the world. And all this was accompanied by the striking expansion of social services which afforded another testimony of rising living standards of the Chinese people. What is still more striking is that all this amazing progress was achieved in a perfectly peaceful manner. The process of socialisation of the economy (i. e., of agriculture, commerce, industry etc.) which had provoked stiff opposition and open hostility elsewhere was achieved without any resistance on the part of the vested interests. All this, as Professor Adler says, "is the most startling demonstration of Chinese communist know-how in social engineering".[20] What is more, the progress of socialisation was much swifter than had been anticipated even by the boldest of Chinese communist leaders.

One might be tempted to ask : What is the secret of China's phenomenal economic progress during the last few years ? It is not easy to answer a question like this. Several technical and other reasons may have contributed to it. But, to us, there appear to be two major causes which have led to this outburst of productive activity. *First*, there is the planning prudence of the Chinese Planners whose great economic vision led them to adopt the Soviet technique of *unbalanced growth* Heavy industry is, indeed, the basic foundation of all economic progress. The Chinese Planners were quick to grasp this truth at the very outset. They devoted a major portion of their productive resources to the fostering of heavy industries. *Second*, there was the mass enthusiasm and the ideological fervour of the Chinese people who were engaged in building up a new society in which they themselves would enjoy the fruits of their labour.

It is not our intention here to attempt any detailed comparative study of the recent economic progress of India and China. It is a subject in itself and cannot be dealt with fully in a paper on Chinese planning. But a brief comparison, however imperfect, would not be inappropriate in view of the great importance of the subject. To get an over-all picture of the two economies, we would do well to compare the rate of growth in the two countries for a period for which statistical data were easily available for both. In the four years from 1953 to 1956, China's national income increased by 43.8% averaging 9.5% per annum.[21] India's rate of economic growth over the comparable period (*i.e.*, during the I Plan period) was 3.6% per annum. No doubt, India's rate of growth compares favourably with the performance of countries like the U.K., U.S.A., and Australia. But it is just one-third of China's rate of economic growth. In other words, the Chinese economy was developing at just three times the rate at which the Indian economy developed in the I Plan Period.[22] Even India's II Five Year Plan does not stipulate a rate of growth of more than 5% per annum. As things are, even the achievement of this 5% per annum appears a little doubtful in view of the recent curtailment of the size of the II Plan outlay. It is presumed that China's rate of economic growth would be substantially higher than 9.5% during her II Plan period in view of the tremendous increases in agricultural and industrial production in 1958. Thus, taking into account, the over-all position, the conclusion cannot be resisted that China is advancing at a much faster rate than India. Even if we take important individual targets, this conclusion stands confirmed. China's steel production in 1958 was 11 million tons. India would not be able to produce so much steel even by the end of her III Plan (*i.e.*, 1966). China's coal production in 1958 was 270 million tons whereas India would produce nearly 60 million tons by 1961. Similar positions exist in respect of other important industries. China's superior rate of growth is thus an established fact. It would not do to poohpooh or decry the Chinese experiment as "totalitarian planning" or look down upon it as "an advance to gross materialism" because the colossal poverty in India presents an equally serious challenge to the planning wisdom of the authorities in India. The sane attitude should be to analyse the Chinese planning experiment in all its implications, make a careful study of the causes of China's rapid growth and examine how far they could be modified or moulded to suit Indian conditions. It is heartening to learn that the Government of India are alive to this aspect of the problem and are keeping a constant watch on the Chinese economic situation and are trying to study the procedures and methods which yield such remarkable results in such a short period.

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[20] *Ibid.* p. 237.

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[21] Po-I-Po—"*How Much to Invest, How Much to Consume*" in *Peoples' China*, Nov. 1, 1956; Dr. K. S. Gill in a painstaking study "China's Rate of Economic Growth" in the Indian Economic Journal (April 1957) estimated the annual cumulative rate of economic growth in China at between 7 and 8 per cent during the period 1952-56.

Prof. Malenbaum also says, "India achieved an annual rate of growth of almost 3·5% in the period from April 1, 1950 through March 31, 1959. Over essentially the same period, the Chinese growth rate was at least three times as great." (Malenbaum—"India and China—Contrasts in Economic Development" published in the *American Economic Review*, June, 1959, p. 285.)

[22] Dr. A. N. Aggarwal has made a detailed comparative study of the progress of the two countries sectorwise in a recent book "*Some Aspects of Economic Development*" (1958). Unfortunately, the data employed pertain to the year 1956. Despite this, the study presents a good contrast. Dr. Aggarwal's main conclusions are :

(i) The over-all position in respect of industries is that China was developing her economy 345% or 3½ times faster than India :

(ii) As regards agriculture, China was improving her agriculture 25% faster than India.

(iii) The Chinese social insurance system was not only superior to the Indian system but is, in range and level of benefits and other respects equal to the best in the world.

It is possible, rather probable, that China's rate of economic growth would exceed even that of the Soviet Union in its earlier stages because China has to-day certain advantages which the Soviet Union did not enjoy. *Firstly*, China's international position, despite her non-admission to the U. N., is much stronger than Soviet Russia's position in the earlier stages. Soviet Russia was surrounded by a hostile capitalist world which denied her all help, financial or technical, in her development. *Secondly*, China did not have to face internal opposition on such a scale as Russia did because capitalism had developed to a much greater degree in Russia than in China; Russia's process of socialisation was not brought about so smoothly as that of China. The "Kulaks" (rich peasants) presented a serious obstacle in the process of agricultural collectivisation and very nearly wrecked the I Plan. *Thirdly*, the Chinese Communist Party has not internal conflict to face unlike its Russian counterpart which had to resort to several purges of the non-conformist elements to unify itself. *Fourthly*, because of the existence of a strong and powerful Soviet Union, China need not spend so much on national defence as the former was obliged to do in its earlier stages. As such, she can allocate a progressively increasing share of the national income to economic development. *Fifthly*, China is not the pioneer in building up socialist industrialisation. She has all the rich experience and technique of the Soviet Union to fall back upon in her industrialisation. And the Soviet Union has been extending technical aid to China on quite a liberal scale. *Lastly*, it should not be forgotten that the whole of western China (Sinkiang Region etc.), rich in mineral deposits, remains yet undeveloped. Its early development is bound to add to China's economic strength considerably.

China is thus destined to be a great industrial power of the world in the not-too-distant future, provided its progress was not checked by involvement in some major war with the KMT regime, backed as the latter was with the full military might of the U. S. A. Already the repercussions of the recent Chinese economic advance are being felt in South-East Asia. China is slowly emerging as a close commercial rival of Japan in the Asian markets and may well leave it behind in the foreseeable future. It was this feeling of consternation which led the Bombay Weekly *Commerce* to write that "all free countries are bound to suffer from the high-pressure salesmanship pursued by Red China.........It looks as though neither the Government nor its creation, the Bank of China, has any respect for interest rates, credit-worthiness of clients or any of those factors which cause endless worry to bankers in the free world."[23]

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[23] *Commerce*, 16th August, 1958.

SUMMARY

The Chinese communists inherited a badly shattered economy when they came into power in 1948. But they managed the economic affairs so prudently and skilfully that by 1952 the Chinese economy had not only achieved normalcy but was also showing symptoms of a new productive upsurge. The carrying out of agrarian reforms and the general strengthening of the socialist sector prepared the ground for the introduction of a planned economy in China. The country launched upon its I Five-Year Plan in 1953. The main objectives of this Plan were to lay down the foundations of socialist industrialisation, socialist transformation of agriculture and handicrafts and the socialisation of private industry and commerce. The Plan involved a State investment of 76,640 million yuans for economic construction and cultural and educational development. In drawing up the pattern of investment, the Chinese planners used exactly the same technique, namely, the *technique of unbalanced growth* which the Soviet Union employed in her formative years. Heavy industries, particularly steel, were given top-most priority. The basic tasks and major targets laid down in the I Plan were fulfilled and over-fulfilled in every respect, though some mistakes were publicly admitted by the Chinese Premier, Chou-En-Lai. China embarked upon her II Five-Year Plan in 1958. The objective of the II Plan was to promote socialist construction and to complete the process of socialist transformation of the economy. Like the I Plan, China's II Plan also gave top-most priority to the building up of heavy industries. It was also decided to speed up the growth of light industries so as to meet the growing needs of the masses for consumer goods. It was also planned to have a diversified rural economy and bring a considerable expansion of stock-breeding, forestry, fisheries and subsidiary cottage occupations. The year 1958 saw spectacular achievements in all the sectors of the Chinese economy. A big leap unparalleled in Chinese history took place in the development of her national economy. About the middle of 1958, the Chinese Government initiated another revolution, namely, that of organising China's 650 million into communes designed to obtain startling economic results within a decade or so. At present, there were about 24,000 peoples' communes spread all over the countryside and affecting over 90% of the Chinese peasantry. Two major causes have led to China's phenomenal economic progress during recent years. *Firstly*, there is the planning prudence of the Chinese planners whose great economic vision led them to adopt the Soviet technique of unbalanced growth. *Secondly*, there was the mass enthusiasm and the ideolcgical fervour of the Chinese people who were engaged in building up a new society. China is thus destined to be a great industrial power of the world in the not-too-distant-future, provided its progress was not checked by involvement in some major war.

ADDENDUM

Some more information has become available since this Paper was prepared and submitted to the Editor for publication.

China, continuing its "great leap forward" over-fulfilled its National Economic Plan for 1959 according to Vice-Premier Li Fu Chan.

Writing in the first 1960 edition of *Red Flag*, he said that according to preliminary statistics, steel output amounted to more than 13 million tons *i. e.*, more than a million tons over the target. Coal output was better than the goal of 335 million tons and the total value of industrial output easily beat the planned target Agricultural output was also way over the target despite the most serious natural calamities in the year 1959, affecting more than a third of all China's farmland. Mr. Li said: "We have accomplished in two years what we expected would be done in five." He added China may thus be said to have kept up in 1959 the tempo of economic progress achieved in 1958.

An unfortunate thing which happened is 1959 is the current Sino-Indian border dispute which has cast its ominous shadow over the age-long friendship between the two countries. It need hardly be said that any clash-of-arms between India and China at this critical juncture would prove disastrous for both. It would most surely arrest the much-desired economic progress in both the countries for many, many years to come.

It is to be hoped that the forthcoming Nehru-Chou meeting in New Delhi in the latter part of April, 1960 would result in some agreement between the two countries removing thereby the present tension and bitterness which have bedevilled their relations for some time past.

PHILOSOPHY, RELIGION AND SCIENCE

RAM NATH SHARMA, M. A., D. Phil.
Department of Philosophy and Psychology, Meerut College, Meerut.

To define a concept is to fix the bounds or limits, to determine with precision, to describe accurately or to fix, the meaning of it. Thus definition is an explanation of the exact meaning of the concept. The most universal concepts of human reason, however, are the most indefinable and yet human thought, in its urge for more and more clarification, always stands in need of defining them. The philosopher has too constantly reflect on these concepts till they are matured enough to interpret the Reality corresponding to them, with a nearer approximation. Besides logical analysis, such a reflection is based on the meaning of the concept which in its turn, is related to the experience to which it corresponds. Thus, in the ultimate analysis, to define any concept the philosopher must proceed with a double process of logical analysis of the concept and critical reflection on the experience for which it stands.

Aristotle devised Metaphysics, to be studied after physics. Thus etymologically speaking, Metaphysics means "after-physics". It is the last science, the science of sciences. It is also the first science, the mother of all sciences. He also calls it the science of Being though such a science is impossible since science deals only with processes of phenomena. Philosophy deals with Being as much as with Becoming. Thus, it includes sciences within its ken. Man experiences eternity as well as change. Philosophy, an explanation of the total experience of man seeks the integral truth.

The rationalists, in the early dawn of Modern Philosophy, defined metaphysics as a knowledge deduced from self-evident principles. This attempt at rationalisation or mathematisation of philosophy sought to make it more exact. But metaphysics with thought as its instrument should never dream to be exact like mathematics since thought, though real, cannot be identified with Reality. To be inexact is both a weakness as well as the strength of metaphysics. The philosopher is a lover of knowledge and never a sole possessor of it. The complete comprehension of Infinite by finite, is a logical impossibility and yet the destiny of man lies in progressing for an ever near approximation to it. The human thought which always bifurcates Reality into form and essence, subject and object, the "that" and "What" can never truely represent the Reality which is an all inclusive spiritual unity. Philosophy is not a matter of logico-mathematical deduction or induction. The laws of Geometry are not applicable to metaphysics any more than they are applicable to Chemistry or physiology. Every new field of experience has its own laws. Philosophy, the moment it loses touch with immediate experience of Reality forgets its way in the wilderness of human ratiocinations which lead us nowhere.

The necessity of basing philosophy on experience was loudly proclaimed by the opposite school of empiricists represented by Locke, Berkley and Hume. Locke, pointed out that for its content the form and instrument of metaphysics is dependent on experience. This was a great corrective to rationalistic extreme and yet by confining metaphysics to mere sense experiences, the empiricists shifted the balance in the opposite direction which lead to the negation of all Metaphysics. It was obvious, since if sense experience is the only experience, Philosophy is a mere wild goose chase. To be itself, philosophy should widen its field to include all types of experience, religious, moral, scientific, spiritual etc. Hume denied the supremacy of Reason. But if reason is a slave to passion, the refutation of reason, being itself a ratiocination, stands self condemned. All refutations of reason are subject to hysteron-proteron. Hume's "criticism of rationalism and reduction and absurdum" of empericism however, gives a lesson which philosophy should not forget. Reason is its surest instrument but to get its data, it should rely on experience.

Kant combines the Baconian idea of the extension of knowledge with the Cartesian idea of certainty. But he also, fights shy of all metaphysics in the ultimate sense. Only the metaphysics of Nature and metaphsic of knowledge is possible. Thus, it was left to Hegel to revive in full vigour the ultimate status of philosophy. The object of philosophy according to him, is to search out the concept, the purpose, the significance of phenomena and to assign to these their corresponding positions in the world and in the system of knowledge. It systematises the values in a unified whole. Here, for the first time, we find a true view of Philosophy as a systematisation of values and facts. But by the identification of Nature with Logic,[1] Hegel arrives at an intellectualism which led Bradley to assert with a vengeance, "Metaphysics is the finding of bad reasons for what we believe on instinct."[2]

This curt remark is a timely warning to all who attempt at reduction of Reality to mere thought but its rejection of all metaphysical speculation as bad reasons appears to be too sweeping. The intellect is not rejected in Spirit but transformed into a better instrument to receive the truth.

Bergson's approach here seems to be more balanced than that of Bradley. Philosophy, according to him, must take into account not only sensory but also mental and intuitive experiences. It must be based on Real experience.[3] Bergson shows a true insight into the problem when he points out that the difference between various schools of Philosophy is because of their fragmentary glimpse of Reality, supplemented by defferent kinds of intellectual interpretation or elaboration. He suggests that by mutual comparison and elimination of peculiarities, philosophers may grasp the universal character of basic Reality.[4]

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[1] Hegel : Preface to the Philosophy of Right.

[2] Bradley, F. H. : Appearance and Reality (Preface).

[3] Bergson, H. : Creative Evolution, P. 202.

Again, Philosophy according to Bergson, "does not only facilitate speculation ; it gives us also more power to act and live. For with it we feel overselves no longer isoloated in humanity, humanity no longer seems isoloated in the Nature that it dominates". Finally, Bergson is an anti-intellectualist only when by intellect[5] he means the faculty in its usual capacity in practical life, intellect working on data supplied by sense-perception. Otherwise, the intellect may cooperate with intuition by assembling the data of intuition and forming fluid concepts[6]. Intuition and Reason are equally indispensable instruments of Philosophy.

Contemporary thought witnesses a chaos in the field of Mataphysics. All sorts of arguments have been advanced to support widely divergent views of Reality. All kinds of reactions are raising heads under high sounding names of 'isms'. All types of methods have been put to test. The purpose of Nature beneath all this burning cauldron of ideologies, however, seems to be the manifestation of an intergral Philosophy which may reconcile all and transcend all, and arouse Philosophy from it's dogmatic slumbers. A true Philosophy is an "esprite de ensemble," a synoptic vision of Reality. It is the intellectual search for the fundamental truth of things.

It is generally agreed by all that Philosophy must be based on experience but as we have already seen, often the term experience has been limited to certain specific regions. The root fallacy underlying all the conflicting schools of Philosophy is a shift from the centre to periphery, an exaltation of part as whole, a dogmatic denial of everything beyond the limited ken of intellect and finally, an unwarranted application of the logic of finite to the matters of Infinite. Philsophy should be all comprehensive, affirmative, synthetic and spiritual. Philosophy, meaning love of wisdom (Philos=love, Sophia=wisdom) should be distinguished from mere opinion. Knowledge, as the Indians conceived it, is the knowledge of that by knowing which everything else can be known[7]. Thus, Philosophy is the knowledge of Ultimate Reality. But Ultimate Reality, as the Indian Philosophy truely maintains, is not only Existence but also Consciousness and Bliss. Hence, Philosophy as the quest after ultimate truth, is the science of value par excellence. It should not only criticise facts but also satisfy human aspirations. It should synthesise value and existence, religion and science.

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4. *Ibid.* P. 252.
5. *Ibid.* P. 285.
6. *Ibid.* P. 251.

कस्मिन्नु खलु भगवो विज्ञाने सर्वं इदं विज्ञातं भवति ॥ मुंडक I. 13.

Thus, the ancient Indian conception of Philosophy, with its emphasis on practice and discipline, needs to be revived. Philosophy should be close to life. Philosophy influences the life of men, individual as well as social. As Aldous Huxley said, "Men live in accordance with their philosophy of life, their conception of the world."

The existentialist revolt in our times characteristically expresses this demand. It is a revolt against logical or naturalistic mechanism, analytical rationalism and fossilised thought, which tends to sap the vital sources of Philosophy, reducing it to a barren pursuit after theories which have nothing to do with our practical life. Similarly, Pragmatism emphasises the pragmatic value of truth. Humanism revives the protegorian teaching of homo-mensura. Instrumentalism defines knowledge as a mere instrument for successful action in life.

Now, it is a great merit of all these approaches that they emphasise the need of making Philosophy serve some purpose, but they err in confining it to the narrow limits of human life. Philosophy as a science of value should lead us to the supreme value, God. Pragmatic value of truth should get its reasonable place in the system of value but it cannot be the highest, still less, the only value. To be a man fully, we should transcend man and hence not man but superman shall be the measure of all things. Philosophy serves life but life serves spirit, and hence spirituality and not life is the summum bonum of Philosophy.

The value-philosopher Windelband truely defined Philosophy as "the critical science of universal values. "But he entirely missed the fact that the kingdom of Philosophy includes both "Beurteilungen" (judgements of value) as well as "Urteile" (judgements of relation). To exalt value, in isolation of existence, ideal, without any connection with actual, as many of the philosophers of value did, is to render values important and Philosophy, a mere idle dreaming. Values are not abstractions but concrete realities. The gulf between L. W. Sterns 'stand point of things' and 'stand point of persons', and Munsterberg's 'world of values' and 'world of facts', is unwarranted. It is the one supreme, Absolute which is the basis of both the standpoint of things and the standpoint of persons, which is equally the essence of the world of facts and the world of values. Fichte's world of moral values is only one side of the story. Rickert's "West an Sich" represents only one aspect of value. Philosophy deals not only with mental but also supramental and inframental values. Values are both immanent as well as transcendent, subjective as well as objective. Philosophy, as a conceptual approach to Reality, includes all types of values and facts.

PHILOSOPHY AND SCIENCE

Fichte suggested that the kind of philosophy a man has, depends on the sort of man he is. Philosophy is a reasoned interpretation of philosopher's own experience. Now, science is also based on experience. This similarity brings us to the problem of the relation of Metaphysics with Science. According to Prof. R. C. Colling Wood, "Any attack on metaphysics is an attack on the foundations of science."[1] This emphasis on the relation of science and metaphysics, however, seeks to degenerate Philosophy into a mere superstructure on the basis of science. It is because Metaphysics deals with the propositions underlying the ordinary science that the unity between the two has been posited. Science and Metaphysics, on the other hand, are united in the one underlying basic unity of Infinite Existence. Science deals with Nature and Metaphysics with Being and since Being corresponds to Nature, Science and Metaphysics are interrelated. The failures of science, though no argument for the truths of metaphysics, indicate the limits after which science must give place to metaphysics.

Science can provide us instruments but not the solution of the fundamental problems of human race and without the knowledge of the essence and purpose of our existence the instrument may prove to be more fatal than useful. Hence the need of Philosophy. Yet, in our Zeal for Philosophy, we must not reject science, since the knowledge of the processes is as much necessary as the knowledge of goal. Hence, Science and Metaphysics are interdependent.

But interdependence is no excuse to abolish differences. Both Science and Metaphysics have their independent fields of enquiry and different methods of approach. Science is a systematic knowledge of a particular kind of experience, while metaphysics deals with experience as a whole. Science deals with Phenomena, the Nature, Metaphysics seeks to know the Noumena, the Supernature. Both Science and Metaphysics use reason as their instrument. But in Science, the reason is a mixed one which cannot sound the depths of Being and surveys mere outskirts of experience, unravels the tangled knots of sense-data,classifies and compares them and forms some general workable hypotheses. Metaphysics, on the other hand, works by pure reason or, to be more exact, through consciousness. It seeks to know the ultimate truth of existence. It employs what S'amkara calls 'suddha tarka' as distinguished from 'suska Tarka'. To sum up, Philosophy must take due consideration of all types of experiences, conscious, subconscious, super-conscious; religious, scientific, moral, social and others. The philosopher, as Plato said, is "a lover, not of a part of wisdom only but of whole."[2] This is the bed-rock on which the extremes may meet. Again, every sound metaphysics must solve the problems of it's age and interpret the truth according to the needs of the time. It is the form and not the essence which changes. The systems of philosophy should be judged by the standards of their time.

ANTI-METAPHYSICS

Some anti-metaphysical movements in our age have questioned the value of Philosophy. Without trying to defend metaphysics against their arguments, we simply wish to point out with Prof. Collingwood, that their's is a criticism of Pseudo-metaphysics[1]. In the first place, a true metaphysics is more practical than science, since it always goes deep to the root of the problems. In fact, what we need is a better Philosophy, truer, more synthetic and wide enough to meet the needs of the time. Secondly, Philosophy cannot be rejected for not being verified. Though its absolute propositions cannot be verified like the relative ones of science, yet they are immediately veredical and hence most certain. The negative approach of a Bradley or Nagarjuna has its reason only in asserting that reason, without its basis in concrete experience, leads us no where. Otherwise Philosophy is irrepressible. A negation of Philosophy is a philosophy of negation. All anti-philosophical judgments are subject to hysteron proteron. But reason is not the last limit. In the immediate realisation of Spirit, when we arrive at pure knowledge, there is no need of reason. The integral knowledge is possible not through reason but through consciousness which can know Reality through direct realisation. The seers maintain that on the supra-mental plane, all philosophy becomes a seeing, a direct vision of truth. But this is only possible when man transcends to superman. Till the advent of the race of gnostic beings, Philosophy cannot do away with reason since to be universal at the mental stage, it must be rational.

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[1] An Essay Metaphysics, P. 170.

[2] Republic, Book IV P. 475.

PHILOSOPHY OF RELIGION

Philosophy is a rational systematisation of facts and values and religion is faith in the realisation of God, the Supreme all-inclusive value. Hence the task of a philosophy of religion, is to explain as best as it can, in its own language and to the rational and intellectual parts of man, the truths, the experiences, the laws of religion. To render the individual experience universal reason and language are indispensable, however inadequate they may be in interpreting religious experience. Philosophy of religion is a rational interpretation and critical analysis of religious experience. It is a good antidote to all kinds of dogmatism and irrationalism in religion, which have been resposible for so much abuse of its name. Faith is not a reasoned conviction, Religion is not a matter of reason. But, it should be able to present its credentials to rational criticism. True devotion should be based on real truth. Thus, Philosophy of religion has the pious duty to discipline religion. The reason controls the infra-rational and opens towards supra-rational. There is a point in affirming that religious experience is ineffable due to its element of supra-rational. But, to purge religion of all irrationalism, Philosophy is a necessary requisite.

Philosophy, however, must not try to dissect the supra-rational element of religion. The Philosopher, who sets out to discuss religion, must himself be religious. No amount of rational reflection can make any one to understand religion; unless he himself has a certain personal experience. All efforts to explain the experiences of religion, by simple observation and analysis, are riddled with psychologist's fallacy. Religion without Philosophy is a boat without rudder, but a rudder by that reason, is no substitute for a boat.

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[1] An Essay on Metaphysics, P. 48.

Philosophy of religion must be based on experience. All it's problems, faith, worship, tradition, revelation and immortality etc. are strains and stresses with in experience. All the confusions of the Philosophy of religion crop up only when reason tries to criticise religion without any aid of actual experience. Such efforts appear like a child's play, who does not understand the ways of adult. All efforts at a science of religion, based merely on observation, classification and generalisations, are vain chimeras. A science of religion, strictly speaking, is not possible at all, since inspite of many overt similarities, the aims as well as the methods of science and religion are different. We cannot know the essence of religious experience by collection of data, their classification and comparison and finally, by formation of some general hypothesis.

Religious experience cannot be explained by intellect without the use of figures, symbols and analogies. Language is a symbolic expression of the facts of experience. Hence, it must be rendered plastic to suit various kinds of data. The language should adapt itself to experience and not vice versa. Philosophy must learn to understand the language of religion, the meaning of its visions and symbols. Then alone, it can serve religion as a true Philosophy of it.

PHILOSOPHY RELIGION AND SCIENCE

Every branch of human knowledge has its reason, its merit and its own sphere of work and each is helpful in the dialectical progression of knowledge. Philosophy logically arranges the eternal modes of Sat. Religion practically and vitally arranges the personal relations of Sat. Science arranges the particular forms and modes of Sat through observation and analysis. Philosophy is a systematisation by critical analysis, religion is faith, in union with Divine and Science the observation and analysis of its particular forms. While Philosophy satisfies the mind, religion satisfies the psychc and since the Reality must satisfy our whole being, both are equally necessary. Hegel's exaltation of Philosophy, as the highest is vitiated by the fallacy of the substitution of mere part for the whole. All Philosophy, Religion and Science are mere means for the realisation of the integral knowledge.

Philosophy is theoretical and religion practical. Theory without practice is an impotent mental conviction and practice without theory is a mere blind impulse. The task of religion is to lead man to Superman, to give him a mould of spirituality and to lead him to the plane of Spirit, through the ignorance of mental plane. Kanti's agnosticism in his '*Critique of Pure Reason*', is a lesson to the votaries of intellectual Philosophy. It is high time that Philosophy should wake up out of its dogmatic slumbers and cease to be a hand-maid of Science. The values must be placed again on their high pedestal, and Philosophy should become spiritual.

We do not wish to maintain that all Philosophy without religion is useless. The pursuit of truth for it's own sake has it's value, and even a Philosophy without religion can give us at least some light about the spiritual destiny of man. The importance of the truths of epistemology cannot be undervalued by any serious thinker. The demonstration of the irrepressibility of self and thought has it's own value. Logic trains the intellect and removes doubts. But the ultimate truth can only be grasped by a coalscence of Philosophy with religion.

Thus, Philosophy, Religion and Science have their own Swadharma and their own methods to achieve the goal. In the integral knowledge, neither of these is subordinated to other, still less is any annihilated, but all are transformed to become still better instruments of spiritual evolution.

FRANZ KAFKA AND THE FAILURE OF HUMAN COMMUNICATION

ANN BENSON,
University of Morrland Munich Branch Munich Sub-Area APO 407 *N.Y., N.Y.*

Much has been said by Kafka critics about the incommensurability of God and man which seems to be a major theme in Kafka's works.[1] Just as 'poignant and more dramatic is Kafka's expression of the incommensurability of man and man — the impossibility of real communication between one human being and another.[2]

Throughout Kafka's works we feel a desperate aloneness, a sense of the ultimate imprisonment of the individual within himself. Inevitably, just at the moment when the protagonist most needs to get through to another person—when his fate hangs in the balance, when he must make himself understood—communication breaks down and the hero is left inarticulate and helpless.

Perhaps Kafka's most dramatic expression of the impossibility of human communication at the crucial moment is Joseph K.'s death scene in *The Trial.* Just as the executioners are testing the knife which is to be plunged into his breast, Joseph K. sees a window at the top story of a nearby house fly up suddenly, a human figure lean far forward and stretch both its arms out. In a frantic last-minute hope that his sentence has been reversed or that someone is coming to his aid, he raises his hands toward the faint, gesticulating figure and spreads out all his fingers. And just at that moment the knife plunges into his heart.

This vivid picture of desperate, mute reaching out toward another human being for help exemplifies the theme of human inarticulateness which underlies all of Kafka's work. This theme is expressed in a variety of ways : through symbolic devices such as the telephone, the message and the official document and through situations in which one person is unable to express himself satisfactorily to another.

Kafka uses the telephone to symbolize the impossibility of human communication in a way which is at the same time amusing and distressing. When K., exasperated by the failure of his attempts to get into contact with the Castle authorities in any other way, finally boldly rings them up on the Inn telephone, he hears on the other end of the line "a buzz of a kind that K. had never before heard on a telephone. It was like the hum of countless children's voices—but yet not a hum, the echo rather of voices singing at an infinite distance........."[3] This passage expresses better than any other in *The Castle* the incomprehensible, dreamlike vagueness which confronts K. in all of his attempts to make contact with someone who can help him.

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[1] For the most notable expositions of this theme, see Max Brod's "Additional Note" in *The Castle* (New York, 1947), pp. 329—340; Edwin Muir's "Introductory Note" in *The Castle* (New York, 1930), pp. i-vii; Daniel Rops' "The Castle of Despair" in *The Kafka Problem* (New York, 1946), pp.184—191; and Albert Camus's "Hope and Absurdity" in *The Kafka Problem.* pp, 251—261.

[2] This recurrent motif has been neglected by most Kafka critics in their search for allegorical and satirical meanings in Kafka's works and is given only passing mention by a few commentators, *e. g.*, Hazel E. Barnes in "Myth and Human Experience". *The Classical Journal,* LI (December 1955), 121—127.

K. still puts a great deal of faith in the telephone, however, for, as he tells the Superintendent, it was over the telephone that an under-castellan confirmed his engagement as Land Surveyor——or, at least, so he was told. The Superintendent lightly dismisses this incident as unimportant and proceeds to give him a lecture on the unreliability of the telephone as a means of communicating with the authorities :

> As you see, in my place, though I've certainly enough to do with the authorities, there's no telephone. In inns and such like places it may be of real use, as much use say as a penny in the slot musical instrument, but it's nothing more than that......... There's no fixed connection with the Castle, no central exchange which transmits our calls further. When anybody calls up the Castle from here the instruments in all the subordinate departments ring, or rather they would all ring if practically all the departments——I know it for a certainty——didn't leave their receivers off. Now and then, however, a fatigued official may feel the need of a little distraction, especially in the evenings and at night, and may hang the receiver on. Then we get an answer, but an answer of course that's merely a practical joke.[4]

In his use of messages, too, Kafka dramatically brings before the reader the impossibility of communication. The messages which K. sends to the Castle authorities seem to evaporate into thin air for all the good that comes of them, and when K. finally does receive an answering message from Klamm, the man with whom he so desperately needs to communicate, it turns out to be a vague, generally worded, "official" document which might fit any of a dozen situations, but which shows that its writer knows nothing of K.'s activities, his need, his plight.

K. finally discovers that letters are sometimes simply fished at random from a pile at the castle and despatched to petitioners, regardless of their relevance. And he never succeeds in getting a satisfactory answer from the Castle until he is on his death bed. In what was, according to Brod, to be the final scene of *The Castle*, K. is dying, worn out by his efforts to get through the authorities, when word comes that he will be allowed to remain and work in the village——not because of his efforts, but due to "auxiliary circumstances."[5] Then he dies. The irony here is devastating. K. has raged, has shouted, has intrigued—anything—in order to make himself heard by those intangible authorities who determine his fate. And all his efforts have come to naught. Then by an incomprehensible coincidence, the machine-like organization of the Castle gives him what he has died trying to wrest from it.

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[3] Franz Kafka, *The Castle*, trans. Edwin and Willa Muir (New York, 1947), pp. 26-27.

[4] *Ibid.*, p. 95.

[5] Max Brod, "Additional Note", *The Castle*, p. 330.

Whether the remote, inaccessible Castle represents God, as some critics believe, or not is a question. Be this as it may, Kafka emphasizes the abyss between K. and the Castle itself by depicting the complete failure at understanding between him and the individuals with whom he must deal in his efforts to reach the Castle. Thus the allegorical meaning, if it is such, is implemented through Kafka's depiction of the problem on a concrete, person-to-person level.

Like K.'s death-bed clearance, another example of the message that arrives too late is in the parable "The News of the Building of the Wall". Here the desperate urgency with which the messenger gives the message is in ironic contrast to its utter uselessness. In this parable a little boy recalls how the messenger—a boatman—arrived and whispered something into his father's ear. "To get even closer he embraced him. I did not understand what was said and saw only that my father did not seem to believe the news. The boatman tried to convince him that it was the truth, but Father still could not believe it ; the boatman, with all the passion of a sailor, almost tore his clothes open on his breast in order to convince him that it was so."[6] In this way "........the news of the building of the wall......... penetrated into this world. This too, arrived late, some thirty years after its announcement" (19).

Perhaps Kafka's most striking use of the message to express the meaninglessness of human communication is in the parable "Couriers". In this parable "they" are given the choice between becoming kings or the couriers of kings. "The way children would, they all wanted to be couriers. Therefore there are only couriers who hurry about the world, shouting to each other—since there are no kings—messages that have become meaningless. They would like to put an end to this miserable life of theirs but they dare not......"[7]

Kafka does not restrict himself to courier-borne messages, but employs all sorts of written communications to illustrate his point. This is particularly true in *The Castle*, in which not only messages but also official documents which could resolve K.'s fate become lost for all practical purposes.

A frantic search for the all-important paper ordering the employment of a Land Surveyor brings to light the mad filing methods employed by most of the Castle officials and illustrates the hopelessness of K.'s attempt to solve his dilemma by means of official communications. In this sense the Superintendent is directing his wife in the search for the missing paper. The woman opens a filing cabinet crammed to bursting and proceeds to throw papers out by the armful so as to get to those at the bottom. "The papers now covered half the floor. 'A great deal of work is got through here', said the Superintendent nodding his head, 'and that's only a small fraction of it. I've put away the most important pile in the shed, but the great mass of it has simply gone astray. Who could keep it all together ? But there's piles and piles more in the shed."[8]

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[6] Franz Kafka, "The News of the Building of the Wall : a Fragment", trans. Clement Greenberg, *Parables* (New York, 1947), p. 19.

[7] Franz Kafka, "Couriers". trans. Clement Greenberg, *Parables*, p. 117.

During the search the Superintendent edifies K. with tales of the higher Castle officials and their overwhelming burden of paper work. He describes the room of Sordini, one of the most brilliant and efficient of all the castellans : "......... From the descriptions I've heard of his room every wall is covered with columns of documents tied together, piled on top of one another; those are only the documents that Sordini is working on at the time, and as bundles of papers are continually being away and brought in, and all in great haste, those columns are always falling on the floor, and it's just those perpetual crashes, following fast on one another, that have come to distinguish Sordini's workroom. Yes, Sordini is a worker........."[9] What more unforgettable picture of the impossibility of achieving anything through official communications can be drawn ?

In addition to his use of the telephone, the message, and official documents to dramatize the hopelessness of communication, Kafka often uses the situation of the protagonist trying to explain or justify himself before a superior. Very often in these situations the superior—usually a domineering man—ruthlessly quashes the protagonist's most reasonable arguments with brute authority or even terrorizes him into dumbness by his overpowering rage.

A striking example of this situation is the progressive loss of voice which Gregor Samsa suffers in "The Metamorphosis". Just after he discovers one morning that he has been transformed into an insect, Gregor tries to talk to his family, who are urging him, through his locked bedroom door, to get up. At first he is able to make passably human sounds by pronouncing each word slowly and separately. But he still does not come out of his room, and he is already late for work. As it grows later, as his father becomes more furious, and as his employer, who has hurried over, threatens him with the loss of his job, Gregor progressively loses his ability to make even semi-human noises. He retreats into silence, but, terrified by the chief clerk's threats, finally blurts out a last desperate appeal to him. Then he hears the chief clerk say to his parents, "Did you understand a word of what he said ? Is he trying to make a fool of us" ?[10] And after a pause of shocked realization the chief clerk says softly, "It was an animal's voice" (26). In this scene we see the protagonist, who has been almost completely metamorphosed into an insect already, losing the last remnant of humanness—his ability to speak—in the face of his father's and his employer's fury.

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[8] Kafka, *The Castle*, p. 7

[9] *Ibid.* p. 87.

[10] Franz Kafka, *Metamorphosis*, trans. A. L. Lloyd (New York, 1946), p. 25.

Another instance in which the hero finally is rendered speechless by the overbearing personality of an authoritarian figure is Karl's sudden and unjust dismissal from the Hotel Occidental by the furious Head Waiter. Because he left his post as lift boy for a few moments in order to put the drunken Robinson to bed, Karl is brought before the Head Waiter for judgment. The Head Waiter does not even look up when Karl is brought into his office, but continues calmly working at some papers on his desk. Then suddenly he "sprang at one bound to his feet and yelled so loudly at Karl that the boy could only stare terror-stricken into the black cavern of his mouth."[11] Before Karl can say a word the Head Waiter roars, "I 'll listen to no excuses, you can keep your lying apologies to yourself........."(172). So Karl says nothing.

After a period of cat-and-mouse type questioning, the purpose of the interview becomes obviously persecutory when the Head Waiter telephones the Manageress—Karl's benefactress so far—and relates to her a long list of false charges made against Karl by the Head Porter. Upon hearing these fantastic charges Karl is relieved, believing that a mistake has been made which he can clear up. As Kafka's protagonists so often do, he naively begins to explain just what happened and to point out the injustice which has occurred, naturally expecting to be exonerated by the facts : ".........There must certainly be some mistake. I understand the Head Porter has told you that I am out every night. But that simply isn't true ; I spend every night in the dormitory ; all the other boys can confirm that.......... The Head Porter has evidently mistaken me for someone else" (179). The Porter furiously interrupts, shaking his fist at Karl, but now the Manageress arrives to defend him. However, as a result of the confusion and hopelessness of his situation, the pain in his arm from the Head Porter's cruel grip, and the deliberate misconstruction of everything he has said, Karl cannot defend himself convincingly and finally lapses into silence. "It's impossible to defend oneself where there is no good will", Karl told himself.......... He knew that all he could say would appear quite different to the others, and that whether a good or a bad construction was to be put on his actions depended alone on the spirit in which he was judged.

" 'He makes no answer', said the Manageress.
" 'It is the best thing he can do', said the Head Waiter" (188).

Often Kafka does not even allow his protagonist the satisfaction of an interview—however futile and frustrating—with the person he must convince. Often he only allows the protagonist to *try* to get in touch with the all-important person, and he holds him in suspense, letting him strive and strain and exhaust himself in futile attempts to make contact.

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[11] Franz Kafka, *Amerika*, trans. Edwin Muir (New York, 1955), p. 172.

This pattern of frustration appears again and again in both *The Trial* and *The Castle*. From the moment he is arrested until his execution Joseph K.'s entire effort is directed toward establishing contact with his accusers. He must find out what he is accused of, he must reach the High Court, he must be heard by the Judge. His way lies through a bewildering maze of intermediaries, advocates, court underlings, people-with-influence—even a court painter and a lawyer's mistress. To no avail. Never in all of his interminable wanderings through rickety law buildings, in all of his dealings with self-styled intermediaries, is he able to confront his accusers or his judge.

Like Joseph K., K. of *The Castle* spends every waking moment—and ultimately dies—in the attempt to get through to the right person. After having tried repeatedly to get in contact with the Castle authorities, K. decides to take the bull by the horns and personally accost Klamm, the key official in his case. He waits in the freezing courtyard for Klamm, he peeps through the keyhole at Klamm, he enlists the aid of Klamm's mistress, he writes, sends messages, telephones—everything—for one word with Klamm. But to no avail. Communication is impossible. There is no way to get through.

The work which devotes itself most completely to the theme of the impossibility of communication is Kafka's story "Investigations of a Dog", written shortly before the author's death. Throughout the whole story we hear echoed the cry of the lonely, questioning individual who cannot get an answer from anyone.

The dog learns as a puppy that he must not ask certain questions. Under the spell of the "mystical" experience of seeing the seven dancing dogs, he feels compelled to speak to them : "I longed to shout to them in spite of their aloofness, to beg them to enlighten me, to ask them what they were doing —I was a child and believed I could ask anybody about anything......... I could no longer restrain myself.........and so.........I shouted my questions loudly and challengingly. But they —incredible ! incredible ! —they never replied, behaved as if I were not there."[12] The puppy is baffled by this rude behaviour on the part of the seven dancing dogs particularly because he clearly sees the youngest dog—the one that sometimes loses step with the others—stealing glances at him "as if he would have dearly wished to reply" (14).

As a result of this strange experience, the puppy becomes obsessed with discovering the meaning of the dancing dogs and grows up to be a questioner—a dog that tries to probe behind the facade of custom and everyday behaviour to the mysteries of life. He alienates everyone with the persistence of his questioning. He is laughed at, ignored, or condescendingly tolerated by his fellows and realizes, as he grows older, that no one will answer his questions——that there is a tacit understanding among his people never to touch upon certain questions, never to speak of certain subjects. And he asks himself in despair, "How long will you be able to endure the fact that the world of dogs, as your researches make more and more evident, is pledged to silence and always will be ? How long will you be able to endure it ?" (30)

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[12] Franz Kafka, "Investigations of a Dog", *The Great Wall of China : Stories and Reflections*, trans. Willa and Edwin Muir (New York, 1946), pp. 11—13.

Time wears on, and he finally comes to the conclusion that all dogs have had the same experience he has had—that they are "all unsuccessful in their own way, all silent or falsely garrulous in their own way, as hopeless research is apt to make one" (50). He realizes now that the silence—rather than the music—of the seven dancing dogs is what was significant about them. Having reached the final stage of resignation now, he says, "......... Their silence confronted me everywhere and in all the dogs I met" (77).

In this story we see the progressive disillusionment with communication with one's kind and all it implies—the absence of aid, comfort, and a feeling of belonging. Beginning as a small puppy, the dog—full of the romantic dreams of youth—determines to ferret out Truth by boldly questioning his elders—by probing to the very depths of life regardless of convention and decorum. His elders, sadder and wiser, know only too well the impossibility of answering these questions ; but even better they know the pain of discovering them unanswerable. Hence, they meet his impetuous questioning with evasion, indulgence, facile agreement—but never with a straight answer. Stung by the sense that some secret is being withheld from him, the young dog increases his efforts to discover Truth. He will not admit that these imponderables, these inevitable questions cannot be thrashed out in conversation. He hounds his fellows with argument and questioning, he makes himself a nuisance, he becomes an outcast. Finally, in his old age, worn down by his impossible task, weak and exhausted from wrestling with unanswerable questions, he mellows enough to realize that other dogs, too, have probably been broken on the same wheel and have lapsed into silence, as a defence. He, too, finally gives up his youthful dream of free communication and retreats into silence. With the final breakdown of all hope of real communication with one's fellows—the realization that the common questions which we urgently ask in youth are not only unanswerable but also somehow forbidden—silence comes as a soothing balm.

It is interesting to note that in what was probably Kafka's last story, "The Burrow", the anxious, harried animal contemplates his hidden burrow with satisfaction and thinks, "But the most beautiful thing about my burrow is the stillness."[13]

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[13] Franz Kafka, "The Burrow", *Selected Short Stories of Franz Kafka*, trans. Willa and Edwin Muir (New York, 1952). p. 259.

All through Kafka's works the theme of the impossibility of human communication sounds like a persistent minor chord. Again and again we see the protagonist in desperate need of talking to the right person and being understood. Almost inevitably he fails. Whether his quest has allegorical implications is a moot point among Kafka critics. The fact remains that in order to gain his ultimate end, the protagonist must communicate with some other person, must work through another human being. And he fails. Joseph K. is never able to come face to face with the Judge ; K., with Klamm. Karl completely fails to convince the Head Waiter ; Gregor, the chief clerk; K., the under-castellans. Messages miscarry, telephones babble, couriers come too late. Human communication is impossible. Man is shut in the prison of his own skin and cannot reach out to others for aid or understanding no matter how desperate the need.

LIFE INSURANCE CORPORATION OF INDIA

(PROBLEMS AND PROSPECTS)

S. P. SHARMA, M. A., M. Com., Ph. D.
Dal Bazar, Gwalior.

Nineteenth January, 1956 would go as a red-letter day in the history of Indian Insurance as on that day under an Ordinance the life business of Insurers, Indian and non-Indian, was nationalised. As a stop-gap measure, Custodians were appointed to look after the nationalised insurance business and then, under a Special Act of the Parliament, the Life Insurance Corporation of India was established in September, 1956.

STORY OF THE PRIVATE SECTOR

While the Life Insurance Corporation Bill was on the legislative anvil, various arguments were advanced for taking the step. The management of companies in the private sector was not sound and many companies went into liquidation. Returns required to be filed under the Indian Insurance Act were not filed in time and in certain companies cases of embezzlement and mal-administration were reported. The provisions of the Indian Insurance Act regarding diffusion of ownership of share capital were by-passed. The concentration of economic power through insurers was mounting. Through inter-locking of directorships insurance companies were kept under the strict control of certain 'groups'.

EXTRAVAGANCE AND LACK OF INSURANCE CONSCIOUSNESS

In certain companies cases of extravagance were reported. The disparity in salary-scales was quite high. The employees were not having security and standard salary and grades. Increments were not regular in some cases and insurance education and training were looked askance at. The providers of security were not secure. Looking to the spread of insurance-consciousness too, the private carriers could not spread the message of insurance in rural areas. The per capita insurance too, was at a very low ebb.

NATIONALISATION

It was under these bewailing conditions that the life insurance business was nationalised. The cut-throat competition and rate-wars were eliminated and the terms of appointment of the employees were standardised. They now enjoy the advantages of bonus and free term insurance. The Field Officers have been categorised and the recommendations of the Lall Committee have been accepted for the classification of officers into various grades. The expense-ratio of the Corporation is steadily coming down from year to year. In 1957 the renewal expense ratio was 15.89% but during 1958 it was only 15.46%. It is likely to record a further decline in 1959 as tighter budgetary control system was introduced during the year.

PRESENT SET-UP

The life Insurance business is carried on by the Life Insurance Corporation through its 5 zones, many divisions and numerous branches. The Government of India appoints 15 directors to its Board for a term of 2 years and an Executive Committee and Functional Directors implement the policy chalked out by the Board. There are various committees to help the Corporation in the efficient conduct of business. The Investment Committee is one such body. It will be in the interest of efficiency to appoint mainly the business magnates and insurance experts to the Board and Committees of the L. I. C. as the bureaucrats may not prove good in practising the art of Human Engineering in administration. A joint management council should be constituted to encourage workers, participation in management. The working of the L. I. C. was punctuated by periods of employees' unrest. The efficient and constructive implementation of the workers' participation in management may reduce these frictional occasions.

The audit of the L. I. C. is done by the auditors appointed by the Corporation itself. Its actuarial valuation is done once at least in two years. The annual audit report, and the actuarial report are submitted by the L.I.C. to the Government. An annual report on the activities of the L. I. C. is also sent to the Government. It is desirable to supplement Commercial Audit by the Comptroller's Audit in order to enhance the parliamentary control over the affairs of the L. I. C. Efficiency audit may also be introduced to let the Parliament know the nature of changes effected by the L. I. C. Plans. Together with the general national budget, the business type budgets of the L. I. C. may also be presented to the Parliament to know of the future plans.

The Central Government is authorised to give directives to the L. I. C. in general matters of policy. As far as possible, they should be in writing. A healthy convention of 'Direction' and 'Advice' should be developed to avoid unhappy deals like one gone through with Mundhra. The Parliament should also evolve sound traditions of not discussing matters of management and of not decrying managers. Questions should be restricted to administrative matters only. As the number of public enterprises is bound to increase in 'Socialist Pattern', a Commission may be set up to review the progress and to tackle the administrative problems of public enterprises.

ACHIEVEMENTS

Since its very inception the L. I. C. has achieved great progress. The 'extras' charged from female lives and army and navy lives have been dropped. Illiterate lives are accepted for almost all types of policies. The premia on whole life policy at advanced ages have been waived and 'express service' for expeditious disposal of proposals, introduced. Group, and superannuations schemes, and Janta Scheme have been gaining ground. Sub-standard risks are also embraced on a large scale.

The new life business has been growing from strength to strength since 1955. The following table reveals it :—

New life business

Year	Total business (Crores of rupees)
1956	200.28
1957	281.90
1958	343.07
1959	428.94

On account of the travails of transition the business declined in the first year of nationalisation but slowly and steadily it has been moving up. During the year, 1959 the new business showed an increase of 24% over the new business produced during the last year. The L. I. C. hopes to achieve the target of Rs. 1000 crores new life business by the year 1963 under its Five-Year Plan.

The average sum per policy of insurance is also increasing from year to year. It was Rs. 3548 in 1957 and in 1959 it rose to Rs. 3805. In terms of total business too the L. I. C. is marching ahead. In 1957, 56.83 lakhs of policies assuring Rs. 1473 crores were in force and in 1958, 62.30 lakhs of policies insuring Rs. 1681 crores were in force. The lapse ratio has gone down from 6.4% to 5.2%. The last actuarial valuation showed a surplus of Rs. 27 crores in 1957. The life fund increased from Rs. 410.41 crores to Rs. 427.81 crores in 1958.

INVESTMENT PATTERN

The life insurance investments in the pre-nationalisation era were used in concerns with which the directors of insurers were closely connected. The funds were kept in associated banks also at very low rates of interest and big brokerage on sale and purchase of securities went to friends and relatives of management. The management made no distinction between the policyholders' trust funds and commercial funds. To achieve the Desideratum of Welfare State, the public sector was required to be embraced and enlarged. In nationalisation of life insurance was found the key to 'Socialist Pattern'.

The L. I. C. investments in 1958 amounted to more than Rs. 420 crores and about 79% of them were held in the public sector and only 21% in the private sector. According to the Chairman of the L. I. C., "It is becoming increasingly difficult to make investments other than in government and approved securities owing to comparatively short supply of sound scrips in the stock markets of the country." The investment research department of the L. I. C. should be strengthened to find out the supply of sound scrips of which there is no dearth in a rapidly industrialising economy. To encourage rapid growth, it is necessary to finance the corporate sector liberally. The new entrepreneurs with good schemes should be encouraged and old enterprises with sound schemes may be financed. Moderate risks should be undertaken. But in all these cases the quality of management should be paid the biggest attention. The L. I. C. funds should not be utilised for stabilising the stock market and the primary duty of the L. I. C. should continue to be the life insurance business. The investments should be made in consultation with the Reserve Bank of India, the State Bank of India and the other leading financial institutional investors also. 'Block' transactions should be carefully entertained to avoid deals with 'ambitious, industrial, empire builders'. The L. I. C. began underwriting of securities in right earnest, but that should be done on an appreciably larger scale in the context of present-day requirements.

INSURANCE CONSCIOUSNESS

The spread of insurance consciousness is still an uphill task. The L. I. C. has taken certain steps to introduce life insurance in rural areas. The State Governments of Bihar and Rajasthan are co-operating with the L. I. C. and the Community Development Blocks are giving due co-operation there. The States of Assam and Andhra have also expressed their willingness in this regard. It is expected that within a short time, with increased efficiency, the L. I. C. may cover a major part of the rural area. The villages require on a large scale the non-medical policy and interesting visual publicity-aids. Agents and field officers having a rural bias should be sent to the rural areas. The co-operation of panchayats, co-operatives and village-school teachers should be secured for spreading insurance-consciousness. The L. I. C. should occupy prominent places in the exhibition organised in and out of the country.

The average sum per policy is showing an upward trend but the gap is too wide between it and the average policy sum insured elsewhere. Even the insurance business exported by the L. I. C. shows a higher average sum per policy (Rs. 11,966) than the Indian counter part (Rs. 3,805). With increased income and sales efforts, vigorous publicity and propaganda drive on scientific lines, insurance consciousness is bound to spread.

EFFICIENCY

Since its very birth, the L. I. C. began to adopt various ways and means to enhance efficiency of its employees. The office staff was not only given standard salary and grades, but bonus and free insurance were also given. The private sector insurers gave very little encouragement to insurance education and training. Now the office employees, passing insurance examinations, are given one grade increment and 5 points for each part of the examinations conducted by the F. I. I., the C. I. I., and the Institute of Actuaries and the Faculty of Actuaries. Steps have been taken to train field officers and 10 centres have been started for the purpose. So far 1500 field officers have been trained at them. Instructors are being sent to give short term training to agents also. Administrative personnel will also be trained in the art of Life Insurance Administration. All these steps speak of the sincere will to develop, which those responsible for steering the bark of the L. I. C. have. But two more steps should be taken to give their efforts a stimulant. First, the F. I. I. should be converted into the C. I. I. on lines of the London counterpart and its Diplomas should be recognised by the Government on lines of those of the Defence Academy, Dehradun to save examinees from the demerits of extreme specialisation in these days of chronic unemployment. And second, a training college for Insurance Employees on lines of that for Bank Employees should be started for ensuring efficiency.* The libraries at branch and head offices should be developed for the benefit of employees.

We should not forget that business has a soul too. Misemployment is the precursor of unemployment. Workers must be treated as man having multitudinous variety of interests and diverse capacities capable of doing wonderful feats. Proper selection, training and emoluments improve their quality. When 'Socialist Pattern' is the ideal of Bapu's India, it is certainly unbecoming to treat workers as commodities. Living conditions are equally important, as also the period of leisure and its utilisation. Indian insurers in most cases pay little attention to these aspects. The result is that many unions of insurance employees are exhibiting non-cooperation. It is desirable to adopt 'correctives' in the interests of efficiency and credit of insurance business.

THE FUTURE

The new mileau for administration places new responsibilities and obligations on insurance administrators and executives. As trustees of the vast insurance funds, management is loaded with responsibility which stretches far beyond the spheres of local production. It should serve the highest ends of community and should be regarded as a national service to the community. No institution, specially an insurance institution, has a right to exist if it does not prove its worth by economic, efficient and honest service.

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* The L. I. C. started an Administrative Staff Training Centre at Nagpur, when the Journal was in press.

DEVELOPMENT OF CASTE CONSCIOUSNESS IN INDIAN CHILDREN FROM 4 To 10[1]

S. D. Singh, K. Singh and Y. Singh[2]
Department of Psychology, B. R. College, Agra.

Introduction

Quite a lot of literature has been produced on various aspects of social stratification which range from social class and caste systems, occupations, age and sex divisions, occupational and social mobility, political, economic, educational, acclesiastical and other institutional heirarchies to the relationships between these institutions and general social structure (Gittler, 1957). And social stratification has also been shown to be related to Psychobiological state of the individual (Ruesch, 1946: 1948: 1948: 1948). Ruesch attributes such psychosematic effects to blocked mobility, frustrations, and feelings of rejections of members of low strata by those who belong to higher strata of a society. Thus, there seems to be a major trend in social stratification studies towards detailed empirical ones, as also revealed by surveys of the literature by Mac Rae (1953) and Pfautz (1953).

However, there is a dearth of literature on the subjective element of social system, i. e., class or caste consciousness, its development within the framework of either class or caste structure. There are some studies (Martin, 1954: Centres, 1950; Himmelweit, Halsey and Oppenheim 1952; Jahoda, 1953) on class consciousness in adolescent subjects, and only two studies, one by Standler conducted in 1949, in the United States, other, very recently made by Jahoda (1959) in Britain, on the genesis of class consciousness in children. Surprizingly enough, there is no published report, so far as our resources permit us to know, either on caste consciousness or on its development in children in a caste structured society. Whatever may be the theoritical concepts, occupational, racial or sacrificial, as to the origins of caste system, it is widely agreed that caste stratification is more 'distinct' and 'fixed' than class system. In it, to a greater extent, an individual's life chances for vertical and horizental mobility are controlled by the rules governing the social status assigned at birth or at initiation ceremony. Hence psychobiological repercussions of a caste structured society on its members are expected to be greater than those in a class structured society.

It is needless to say that Indian society is *classically* caste structured (See Cox, 1945: Brooks, 1946; Hutton, 1950; Tumin, 1952; Marriot, 1953; 1955;

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1. Acknowledgements : We are greatly thankful to the primary school teachers who helped us by providing the subjects.
2. Assistant Professor of Sociology at the Institute of Social Sciences, Agra University, Agra.

Hocart, 1950; Prasad, 1957; Majumdar, 1958). Hence, because of its uniqueness Indian society has been an attractive field for social scientists. Hewbe'it, a host of very important problems still awaits investigation.

Today, mainly because of its 'fixity' in form caste system is failing to adapt to the prevailing social environment. And gradually, intercaste coordination is being replaced by inter-caste tension both in rural and urban areas (See Mukerjee, 1951; Kaliprasad, 1951; Parsram, 1955; Murphy, 1953; Majumdar, 1958). Legislative and social measures are being taken by Indian leaders in order to abolish caste system. But the success in this direction seems to be well below the level of efforts. It should be realized that caste discrimination or feeling is a product of prolonged learning process, but hardly any attempt seems to have been made to investigate its earlier stages. It is important to know the process of caste concept formation, and the age level at which caste consciousness begins to appear in children. Such an information will enable the social agencies concerned to take educational and other measures in order to prevent the growth of caste consciousness at the appropriate time. Therefore, the present work is intended as a contribution towards the genesis of caste consciousness in children from 4 to 10 years of age.

II METHOD

(i) *Subjects* : The study was conducted in Agra city (U. P., India) and some of its neighbouring villages. In order to give adequate representation to the parent population, children of both sexes belonging to various caste groups and residing in rural and urban areas were randomly selected for the study. To have children from different castes' categories, following classification was adopted. It represents general hierarchy of castes in— Uttar Pradesh, almost a prototype of Indian caste hierarchy, in general. Castes may be so graded economically and socially. Table 1 represents num-

Upper castes	(Brahmin)	U C
Upper Middle Castes	(Rajput, Jat and Ahir)	U M C
Lower Middle Castes	(Artisans)	L M C
Lower Castes	(Chamar, Sweeper, etc.)	L C

Table 1

Age, Sex, Caste and Residence (Rural/Urban) of The Sample

Age

Castes	4	5	6	7	8	9	10	All ages
				(A) Urban				
				(a) Boys				
UC	6	6	6	6	6	6	6	42
UMC	6	6	6	6	6	6	6	42
LMC	6	6	6	6	6	6	6	42
LC	6	6	6	6	6	6	6	42
All castes	24	24	24	24	24	24	24	168
				(b) Girls				
UC	6	6	6	6	6	6	6	42
UMC	6	6	6	6	6	6	6	42
LMC	6	6	6	6	6	6	6	42
LC	6	6	6	6	6	6	6	42
All Castes	24	24	24	24	24	24	24	168
				(B) Rural				
				(a) Boys				
UC	6	6	6	6	6	6	6	42
UMC	6	6	6	6	6	6	6	42
LMC	6	6	6	6	6	6	6	42
LC	6	6	6	6	6	6	6	42
All Castes	24	24	24	24	24	24	24	168

(*b*) *Girls*

UC	6	6	6	6	6	6	6	42
UMC	6	6	6	6	6	6	6	42
LMC	6	6	6	6	6	6	6	42
LC	6	6	6	6	6	6	6	42
All Castes	24	24	24	24	24	24	24	168
							Total	672

ber of subjects and their allocation arrangement with respect to age, sex, caste and residence (rural/urban). It will be seen from the table that 672 subjects were used in total, of which 336 were from city and 336 were from village. Mainly the children from primary and montesorry schools situated in poor, middle and upper class localities of the city, formed our urban groups. In order to have adequate representation of city population, not more than 42 subjects, boys or girls of required age levels were selected from one school. It would have been ideal to have sample from one school completely representative of sex, age and caste variables. But it was almost impracticable, since very few schools have co-education, children from different castes, and also children below six years of age. So, many schools of boys and girls were tried to have six boys and six girls of appropriate age levels for each caste category. For rural sample, only boys and girls of primary schools were available, as there are no montessory schools in villages. We had to try a number of schools in different villages to complete our quota for rural girls, since very small number of rural girls attend schools. It will also be seen from the Table I that the groups were not classified with respect to economic status. It could not be possible to get correct information about their parents' income, as most of the parents hesitate to give correct income for fear of income tax. However, lack of such information may not bias the results, as there seems almost an overlapping in economic status and caste of an individual (Baljit Singh, 1952).

(ii) *The Technique and procedure* : In general, questionnaires containing direct questions: 'What is your caste or class ?', 'How many castes or classes are their in your country ?' etc., and pictorial tests have been used in this kind of studies. Undoubtedly, the latter method (indirect) gives better information than the former (direct). As an axample, the study of Himmelweit and others (1952) may be quoted, the boys between 13 and 14 ages were put a direct question : 'Do you think that there are social classes in England ?' A majority of them failed to understand the question, though they were quite class conscicous. Whereas, Jahoda (1958), by using a pictorial test, showed that even the children of 6 or 7 years of age become class conscious. Of course, pictorial tests are more informative, but it is only when the caste or class features are so distinct and discrete as to be distinctively produced in pictures, and the subject has developed the required discriminatory capacity. A boy or a girl of 4 or 5 may easily respond in 'yes' or 'no' to a simple question : 'Have you heard of or seen a sweeper or a chamar?, rather than to discriminate between pictures of a chamar and a sweeper. Moreover, it is easier to depict a poor and a rich person distinctively in a picture, but it is hard to paint a chamar and a gadaria distinctively. Another difficulty which arises in using a pictorial test is of matching the groups for I Q, as discrimination element involved in pictures is likely to be correlated with intelligence of the subject. Hence, in view of certain difficulties involved in giving pictorial tests, we decided to use questionnaire method with very simple questions in this study.

A comprehensive concept of caste awareness involves knowledge of a subject about his own caste, other castes, functions of respective castes, broader idea of highest and lowest castes, and finer caste status discriminations and ranking. The following questionnaire used in this study almost covers all these points.

INTERVIEW SCHEDULE

Name....................Age....................Sex..............Caste...........
Parents occupation..............Parents monthly income......................
Parents education...........................Subject's education..................
Urban or rural (Hindu or Muslim)...
Questions :—

1. What is your caste ?...
2. If, yes, are there other castes also ?..
3. If, yes, can you give their names ?...
....

4. Have you ever heard of or seen—	5. What do the following castes do ?—
i. a Sweeper	i. Sweeper
ii. a Chamar	ii. Chamar
iii. a Gadaria	iii. Gadaria
iv. a Nai, Dhobi, Kumar, Luhar, Carpenter.	iv. Nai, Dhobi, Kumar, Luhar, Carpenter.
v. a Jat, Ahir, Gujar	v. Jat, Ahir, Gujar.
vi. a Thakur or Rajput	vi. Thakur or Rajput.
vii. a Bania	vii. Bania
viii. a Brahmin	viii. Brahmin

6. Which of the following caste people are highest and lowest ?—

i. Sweeper
ii. Chamar
iii. Gadaria
iv. Nai, dhobi, kumar, luhar, Carpenter.
v. Jat, Ahir, Gujar
vi. Thakur or Rajput
vii. Bania
viii. Brahmin

7. What would be the order of the following castes as to their superiority ?—

i. Sweeper
ii. Chamar
iii. Gadaria
iv. Nai, Dhobi, Kumar, Luhar, Teli, Carpenter.
v. Jat, Ahir, Gujar.
vi. Thakur or Rajput.
vii. Bania
viii. Brahmin

Questions were read aloud to subjects individually and answers were recorded on the questionnaire. A check mark (√) was used for right questions, typical responses were also noted down after the question concerned. In order to discriminate between correct and incorrect answers, a functional construct of the caste groups included in the questionnaire prepared on the bases of the regional pattern of traditional castes' occupations was used as reference. In case of rural children, questions were put in their own local dilect. Thus, the required data was obtained.

(iii) *Scoring* : To each set of questions weighted scores were assigned according to the difficulty level of the set evaluated on the basis of average ranking of questions by four experts. Question 1 was allotted 5 marks for correct and 0 for incorrect answer; question 3, 1 mark for giving the name of one caste, 2 for giving the names of two castes, and so forth; question 4, was allotted 8 marks in total, one for each subquestion; question 5, was allotted 24 marks in total, 3 for each subquestion; question 6 was allotted 16 marks for correct answer and 0 for incorrect; question 7 was allotted 32 marks for all the correct comparisons, 4 marks for one correct comparison. Thus, all the questionnaires were scored.

III. RESULTS

After Pearson and Hartley's test had shown no significant hetrogeniety of variance in the data, an analysis of variance was performed on it, the

Table 2

Summarised Results of Analysis of Variance

Source	d.f.	S. S.	MS
Sex (S)	1	7163.14	7163.14*
Caste (C)	3	3338.726	1112.91*
Residence (R)	1	10059.53	10059.53*
Age (A)	6	165783.60	27630.60*
S × C	3	345.62	115.21*
S × P	1	919.34	919.34*
S × A	6	5253.49	875.58*
C × R	3	720.79	240.27*
C × A	18	7789.96	432.78*
R × A	6	8215.58	1369.26*
Residual variance	623	105790.83	169.81
Combined variance	629	106857.24	169.87

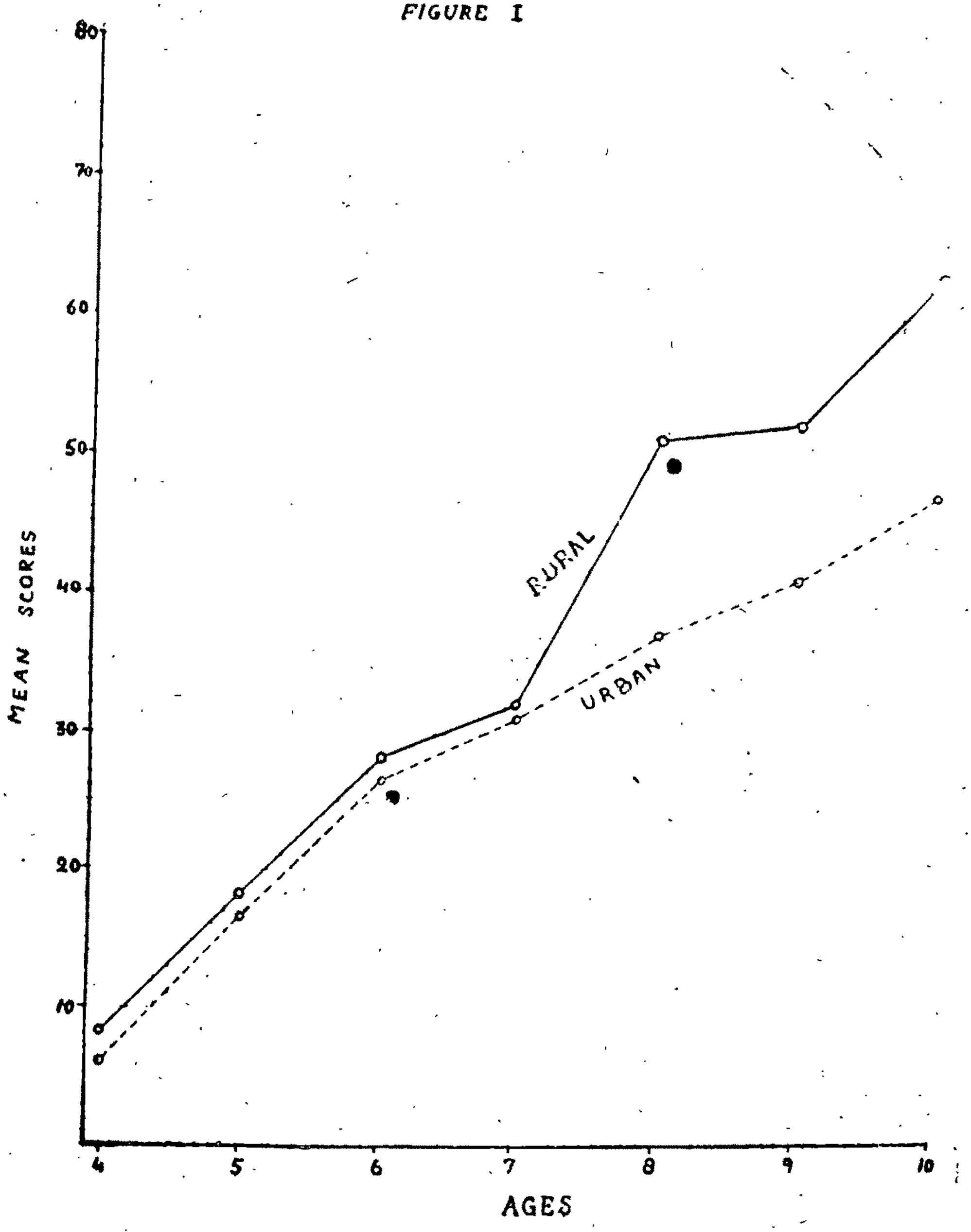
* Significant at .01 level.

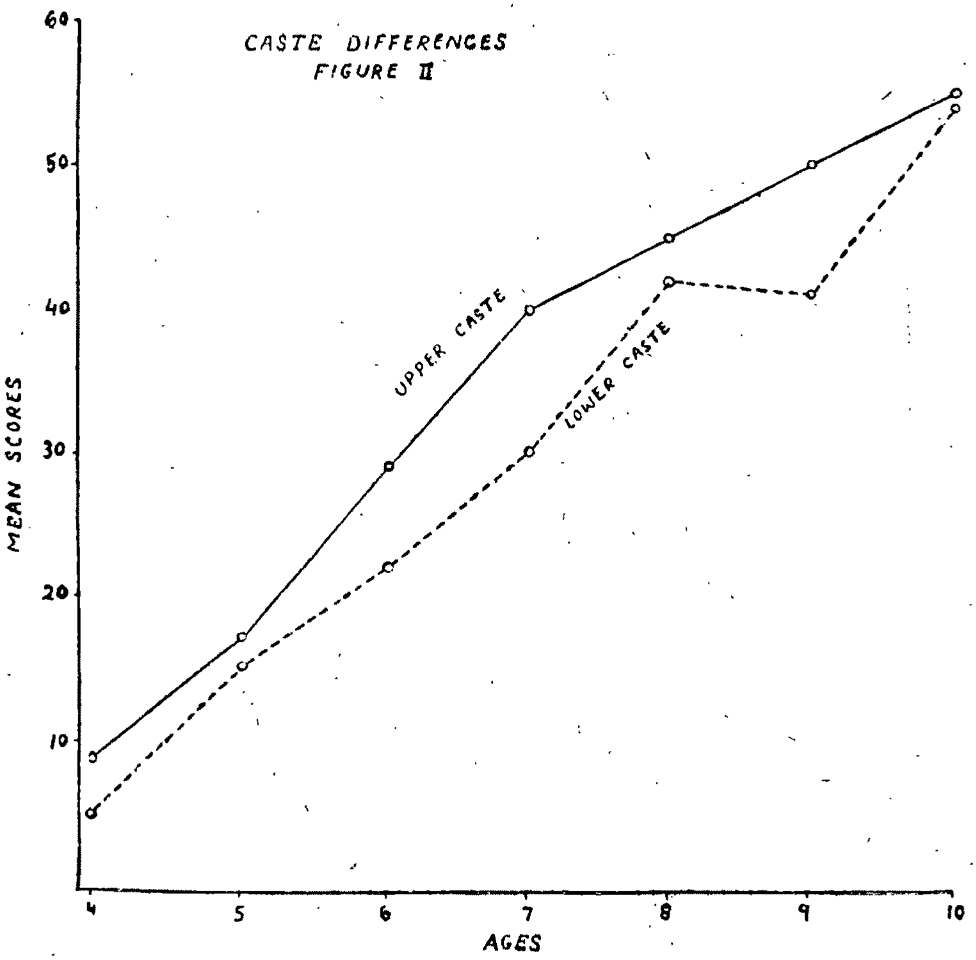
summarised results of which are given in Table 2 above. From the table it will be seen that the results of the analysis of variance are given only up to first order interactions. No higher order interaction turned out significant. And the rest of the total variance was treated as error variance for testing the first order interactions. The variances due to the non-significant interactions were again combined with the residual variance, and this combined variance served as error term for testing the main effects. As shown in the table, the variances due to sex, caste, residence and age variables, and interactions between sex and residence, sex and age, caste and age, and residence and age turned out to be highly significant, the level of significance being not less than ·01 in any case. When the mian effects tested against their respective highest first order interactions, only variances due to residence and age variables retain statistically acceptable levels of confidence, the former reaching ·05 level, and the latter, ·01 level of significance. This points to the fact that the significant effect of residence and age are generalizeable, but not those of sex and caste variables. Of course, the latter variables seem to have significant effects on the development of caste consciousness, but their importance appears to be greatly related to certain specifications, as revealed by their significant interactions.

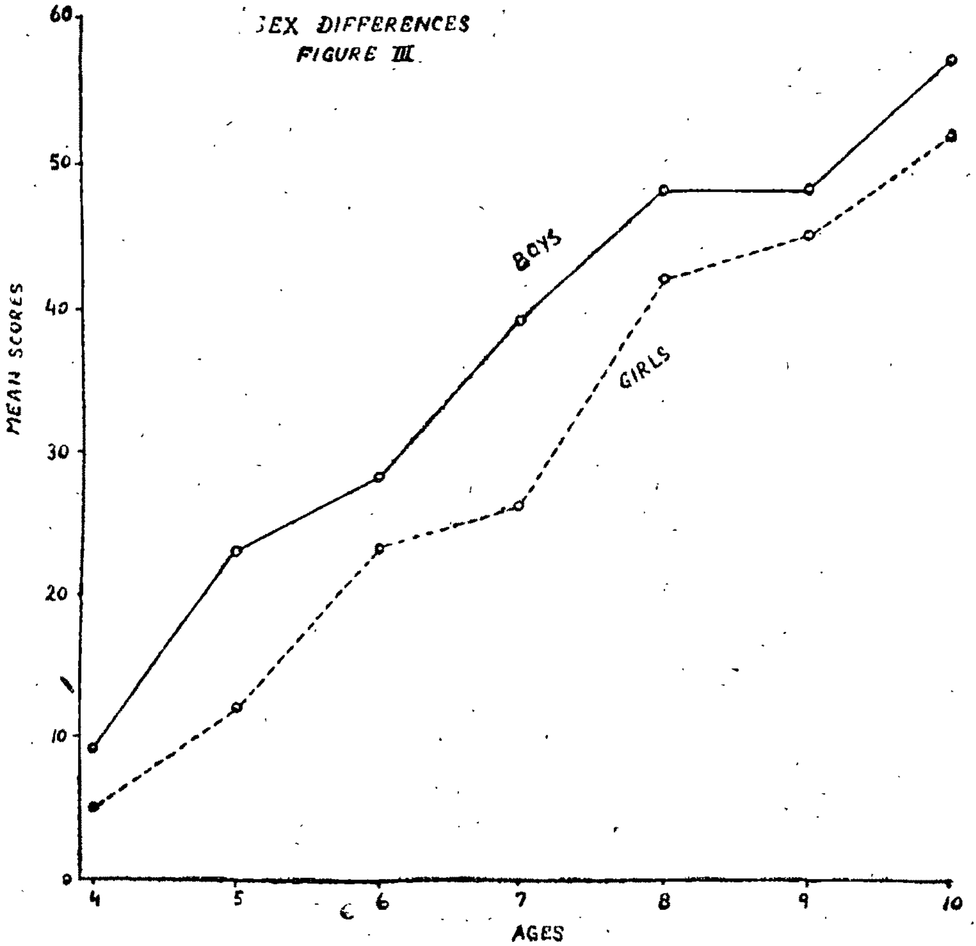
Highly significant F ratio due to age verifies the assumption that caste concept, like other concepts, develops with age. Though age variable significantly interacts with sex, caste and residence factors; but the reliability of arriving at this conclusion remains definitely uneffected. The significant F due to residence (rural/urban) indicates that caste consciousness develops earlier and faster in rural children than that in urban children. However, the interactions of the variable with age and sex variables seem to specify the conclusion. An analysis of these interactions reveals that such an inference is applicable only to rural and urban children who are above 7 years of age. Figure 1 illustrates this more clearly. Caste factor does also seem to have some effect on the development of caste consciousness, children of upper castes being superior than those of lower castes. But the highly significant interaction of caste variable with age tells heavily upon the reliability of its significance, whereby no trend is discernible in the effects of caste variation on the development of the response when the interaction between caste and age variables is analysed. But when these four castes' categories were reduced to 'higher' and 'lower', the former including the upper and upper middle castes, the latter, lower and lower middle castes, significant differences, as illustrated in figure 2 were found between them. The former being consistently higher than the latter. Sex factor appears to be significantly (∠.01) influencing the response, boys developing caste consciousness earlier and faster than girls, as may be seen in Figure 3. Analysis of highly significant interactions between sex and age, and between sex and residence indicates that in every age group boys are superior than girls, but these differences are only significant among 5 to 9 years age groups. However, conclusions related to sex variable may be taken to be quite reliable. Figure 4 clearly depicts sex differences within rural and urban groups.

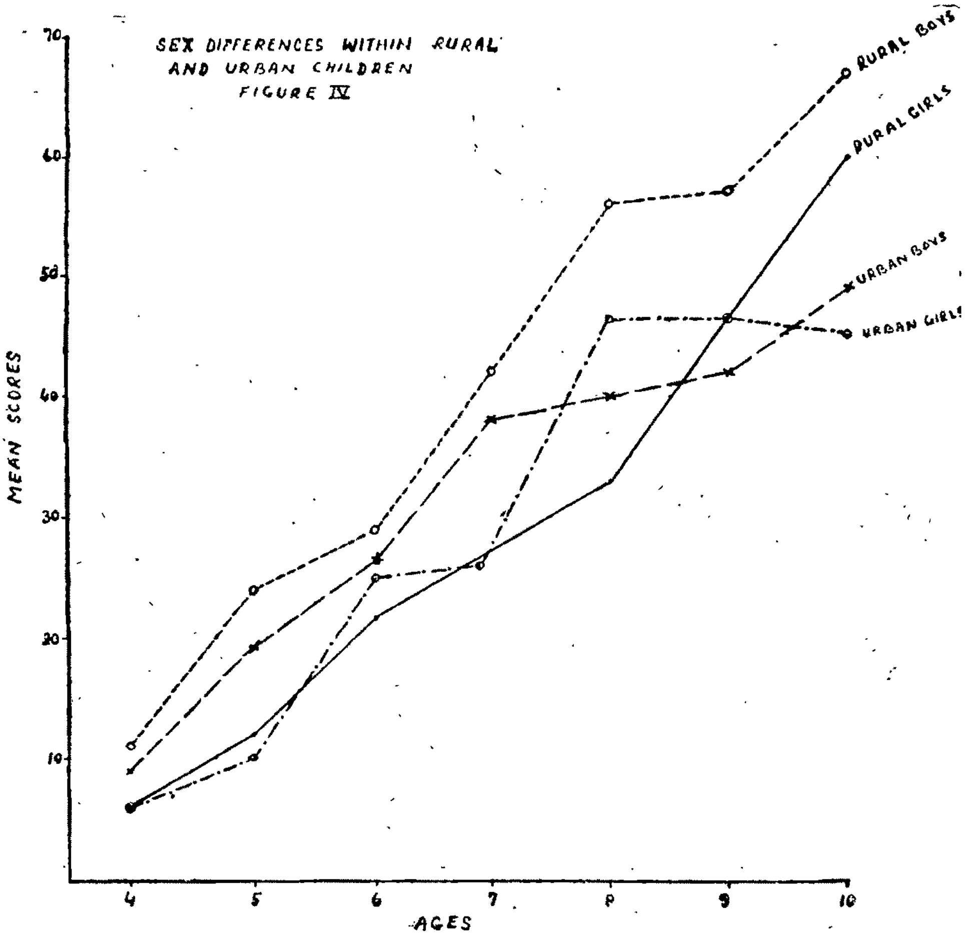
As already mentioned that the clear concept of caste involves various facets, awareness of one's own caste, existence of other castes and their names, occupations, and social gradation of various castes' people. The results given so far fail to inform us about the various aspects of the concept formation. For this, we had to calculate percentages of children of each age level, and for each question. To calculate percentages for questions, 4, 5, 6 and 7, we proceeded arbitrarily. Answers to questions 4 and 5 were considered to be indicative of a subjects familiarity with various castes, and their respective occupations only when he answered more than three sub-questions correctly in each question; answer to question 6, if he told both highest and lowest castes correctly; answer to question 7, only when the subject gave three correct comparisons. The results so computed are presented in Table 3. It will be seen from the table that it is only at the age of about 6 years that children become aware of their own castes in majority (62%) and not before that. The children of this age, 6 years, seem to have very little information

DIFFERENCES BETWEEN
RURAL & URBAN CHILDREN
FIGURE I




CASTE DIFFERENCES
FIGURE II
UPPER CASTE
LOWER CASTE
MEAN SCORES
AGES
60
50
40
30
20
10
4
5
6
7
8
9
10


SEX DIFFERENCES
FIGURE III
BOYS
GIRLS
MEAN SCORES
0
10
20
30
40
50
60
AGES
4
5
6
7
8
9
10


SEX DIFFERENCES WITHIN RURAL AND URBAN CHILDREN
FIGURE IV
MEAN SCORES
70
60
50
40
30
20
10
AGES
4
5
6
7
8
9
10
RURAL BOYS
RURAL GIRLS
URBAN BOYS
URBAN GIRLS

about the existance of other castes. Only 23% of the children of this age, and 45% of 7 years of age could answer the question: 'Are there other castes also?' in 'yes'. It is only the 8 years children who seem to have acquired this information in majority (69%). And 59% of the children of 8 years of age could also give names of certain castes. When these scores were analysed with respect to sex and residence of the respondents, considerable differences were observed between the rural and urban groups, and also between boys and girls, both in terms of age level and percentages. Quite a large majority of boys become conscious about their own caste, existence of other castes and their names at about the ages of 6, 7 and 7 years respectively; whereas, equivalent ages for girls are about 8, 9 and 9 years, caste consciousness developing earlier in boys than girls. Similarly, the rural children become quite conscious about their own castes, existence of other castes, and their names at about the age of 6, 7 and 7 years respectively, whereas, the corresponding ages for urban children are about 8, 10 and 10 years.

Table 3

Question-wise Percentages of Children of Each Age Level

	Ages						
Questions	4	5	6	7	8	9	10
1	18	21	62	65	94	77	84
2	1	9	23	45	69	62	96
3	1	11	31	40	59	60	77
4	90	98	100	100	100	100	100
5	53	71	92	89	95	93	95
6	13	30	56	62	77	74	96
7	0	2	13	19	33	38	62

While looking at the table one would find that almost all the children of 4 years of age told that they had seen or heard certain castes people. But 53% of them could tell about the various castes' occupations. By the time they attain 6 years of age a majority of them (71%) become quite aware of occupations of various castes. Differences due to castes, sex and residence of the subjects with respect to their information about the occupations of various castes, and their familiarity with various castes' people do not seem to be of any significance. It should be noted that a large majority of the respondents failed to tell the occupations of higher castes, specifically, above the Rajput level; whereas, they had no difficulty in telling the occupations of lower castes, specially those of sweepers and artisans. It is not surprising at all. Because of very high occupational mobility within the higher castes, occupations of them are no more defined. It may also be of interest that a sweeper is first to be known, then artisans, and brahmin etc. By the analysis of question 6 and 7, it becomes clear that may be the children of 4 years of age become quite familiar with various castes persons and their occupations, but it is at the age of about 6 years that they come to know about highest and lowest castes; before 6 years of age only 13% of the children of 4 years and 30% of 5 years acquire this knowledge. And it is at about the age of 9 and 10 that they become aware of social gradations of various castes. When the scores of these two questions, 6 and 7 were analysed with respect to sex and residence of the respondents, some differences due to residence variable were observed. A large majority of rural children come to know about the highest and lowest castes, and social gradation of various castes at about the age of 7 and 9 years while the corresponding ages for urban children are 8 and 10 years. No such differences between boys and girls were observed. Thus, it would seem that by the time children are 10 years old, very few children remain unaware of caste differences.

IV DISCUSSION

In the present study we aimed at investigating into the earlier stages of caste consciousness, and some of its determinants. The results obtained clearly indicate that, as expected, caste consciousness regularly increases with age progression up to a certain age level. Hence the general belief that caste feeling or consciousness is a matter of learning and not of biological inheritance is scientifically confirmed. Ontogenetically the various facets of caste concept appear at different age levels. And their age levels may be divided into three: In the first period, which ranges probably from 3½ to 5 years a child becomes quite familiar with the names of various castes people and occupations of some of them particularly those of the lower castes' people *i.e.*, sweepers, chamars etc. But when the children of this age range were asked: 'What is your caste?' Are their other castes? and how many castes are there in India?, a large majority of them failed to understand the questions. Such a failure may be attributed to the fact that children of this age probably do not understand the meaning of the word caste. Similar problem was also faced by Himmelweit and others (1952). A large majority of their respondents, 13 to 14 year old boys, were found quite class conscious, though failed to understand the question: 'Do you think that there are social classes in England? This only points to the fact that in studies of this kind, while using verbal methods, actual vocabulary of the subjects about social class or caste should not be taken for granted, otherwise, the results are likely to be biased. In the second period, which ranges from 5 to 7 the children become aware of the lowest and highest castes, or of social gradation of various castes in a broader sense. And in the third period, which ranges from 7 to 10 or more, a large majority of children come to know about the social ranking of the various castes more discriminatively. Thus, the caste concept formation appears to reflect all the stages, concrete to abstract or operational to systematization in concept formation, in general.

The differential effect of the sex variable on the development of the concept is as expected. In view of the different social environment for man and woman in Indian society allowing more social space to man than to woman, it may have been hypothesised that boys would develop the concept earlier and faster than girls, as the personal experience of an individual with persons or objects in the environment is as important as the interrogative basis in concept formation, either social or mathematical. It may be argued that girls being generally more shy than boys may not have answered the questions as frankly as boys. But in view of the results obtained, the rural girls scoring almost equal to urban boys, such an argument does not seem a valid one. The greater caste consciousness in rural than in urban children may be explained as following. It is well recognised that because of smaller population comprised of various castes in villages, as compared to large population in cities, there is a greater social proximity in villages than in cities. Hence personal contacts in a village are more frequent and easier than are possible in a city, thus giving rise to earlier and faster development of caste consciousness in rural than in urban children. Greater consciousness in rural children may also be due to greater degree of conservatism in rural than in urban people. Finally, caste identification on functional basis is more visible in rural than in urban areas. Hence the greater consciousness in rural than in urban children.

With regard to the caste factor, it was expected that the children from the upper castes would be found caste conscious earlier and greater than those from the lower castes, as the upper castes' people being more concerned with preserving their superior caste status may be supposed to infuse consciously or unconsciously the caste feeling in their childrens' minds more than the lower castes' people. The results obtained support such an assumption, but not in a clear cut way. Now significant differences were observed between the lower and lower middle castes' children, and also between the upper and upper middle castes' children. Only higher and lower castes children differ significantly. The absence of differences between the lower and lower middle castes, and also between the upper and upper middle castes may be due to their homogeneous social environments, which greatly differ for higher and lower castes' children.

Lastly, it should be reminded that though children begin to be aware of the existence of various castes and of their occupations at about the age of 4—5, but the consciousness of social gradation of various castes people begins to appear at about the age of 6 years. It is this consciousness which defines one's inter-and intra-castes relationships. So any measure to prevent the growth of such feelings in children should be taken at about the age of 6 years. And the results of such measures are likely to be more promising if sex, caste and residence differences are also given due consideration.

SUMMARY

A spacially formulated questionnaire was used in order to investigate the earlier stages of caste consciousness in a randomly chosen sample of 672 children of 4 to 10 years of age. They were boys and girls from various castes and from rural and urban areas. The results show earlier and faster development of caste consciousness in boys, in rural children and in upper castes' children as compared to girls, urban children and lower castes children respectively. It is also suggested that any measure to prevent the growth of caste feeling in children should be taken at about the age of 6 years.

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CONTENTS

PAGE

1. Governing Boards of State Enterprises in India. By TIRTH RAJ SHARMA 127
2. The International Bank for Reconstruction and Development in Operation. By K. K. SHARMA 137
3. The Symbolic Imagery of Shelley : A Brief Survey. By JAGDISH B. SINGH 149
4. Types of Rural Settlement in East Rajasthan. By NITYANAND ... 167
5. Some Facts about the Cultivation of Wheat in the Moradabad District of Uttar Pradesh. By S. L. DUGGAL 181
6. Historical and Cultural Geography of the Ganga Valley in Etah District. By T. R. SHARMA 193
7. Worries in Urban Life. By D. S. CHAUHAN 215
8. A General Survey of Labour Conditions in India's Biri Industry By PRAKASH CHAND MAHESHWARI 5

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Editor-in-chief

GOVERNING BOARDS OF STATE ENTERPRISES IN INDIA

TIRTH RAJ SHARMA, M. Com., Ph. D.
Assistant Professor of Commerce, B.R. College, Agra.

It is an accepted proposition that an economic enterprise, whether public or private, must run on business principles. The main point about a State enterprise is that it is an organisation whose objective is to meet the public need most economically and efficiently. In other words, it has to provide serivce or industrial product in an efficient manner at a cost or price consistent with other objectives of State policy.

For the efficient and successful operation of a State industrial undertaking on business principles, the importance of the governing board can hardly be exaggerated. It is a matter of significant magnitude that suitable personalities should be found out at the highest level of management. It is well said that the form of organisation is not one hundredth as important as the persons in it. "Put a good man in a bad set-up, he will probably pull the whole thing through and put a bad one in a fine set-up, he won't pull through." Thus the success or failure of national undertakings depends largely on the quality of boards which are responsible for their direction and governance. "For, from this, flow all the decisions on policy and administration which together make up good or bad management."[1]

A distinction may, however, be made between the board of a public corporation or company and the board of a private company. The directors of the latter are essentially and absolutely representatives of the shareholders whereas the board of a public undertaking has got much wider responsibility than the board of a private undertaking. The board of a public corporation is saddled with duties to the consumers, to the employees, to the government and to the nation at large. The managers of a nationalized industry, especially one with monopolistic powers, are in a different position from those of a private concern. "They are not solely concerned with maximising profits or even with lowering costs, but have a certain responsibility to the community at large and to the employees within the industry in their role as citizens and human beings."[2] Such a board has to look, therefore, to the interests of various parties and as such, the composition of the board and the manner in which the members thereof are selected are very important from more than one point of view. The be-all and end-all of a capitalist bussiness is profit and dividend but the board of public enterprise and its officers must regard themselves as the high custodians of public interest which should be the basis of their selection.

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1. W. A. Robson (ed.)—Problems of Nationalized Industry, P. 91.
2. Action Society Trust :—Nationalized Industry (The Men on the Board) p. 2.

TYPES OF BOARDS

The most important question is whether the board should be functional or policy-making one. There is the functional board which consists of full-time members in charge of particular branches of the work and the policy board which consists of men, full-time or part-time, none of whom is responsible for specialised functions as an executive head. The functional board as a managing board, forms part and parcel of a particular undertaking whereas the policy board watches the affairs of a unit from outside with a more comprehensive outlook and larger vision and then, advocates the policy. It is in this context, therefore, that a functional board of direction which consists of members each of whom is responsible for a single aspect of the working of an enterprise, say, marketing or purchases of raw materials, can hardly be expected to bring to bear on decisions in a better way than a policy board, as in the former case, each member is likely to be more concerned with his own department than with the concern as a whole. As remarked by Mr. A. D. Gorwala, "the members of a policy board not immersed in detail are perhaps better able to see the picture as a whole and to take broad decisions" which are so essential to the success of an enterprise.

MEMBERSHIP (FULL-TIME OR PART-TIME)

The governing board may be composed of whole-time or part-time members. A practice usually followed in the case of private enterprises is that on their board of directors, they have several individuals whose principal contribution is simply the addition of their names to the list of directors. It is due to their reputation that they may help to reassure the public about the soundness of the undertaking. Such an addition of dummy names and display directors does not hold good in the case of publicly-owned enterprises where it is highly desirable that varied talents should be present on the board who should possess administrative, business, financial and technical abilities and work with a team spirit. It is absolutely on the availability of suitable persons that the members should work part-time or full-time but the members should be chosen simply for their ability and experience in industrial and administrative affairs. The chairman being the keyman for the enterprise and the members of the board should, as far as possible, be appointed whole-time and in case of the non-availability of a particular industrialist as chairman, his appointment may be on a part-time basis. It may be well said that the part-time people who have other jobs to do and can devote only a few minutes at the time of board meeting cannot be of much help for an undertaking, but, on the contrary, if there is a board of full-time directors, the chief exceutive will get tired of them. However, part-time directors do not have any time to study the papers and make up their minds to arrive at a quick and final decision. These people are not, in the least, interested in autonomy and do not have time to do justice in their assignments as they have full jobs elsewhere.

BOARDS IN INDIA

In India and elsewhere, it has been generally accepted that the administration of a State undertaking should be entrusted to a board which is a proper body for this performance. In the State enterprises, established in this country as private limited companies, wide variations are to be found in the scope and functions of each board. But the top control can be demonstrated by the following ladder :—

Shareholders (Government)

Secretary to the Parent Ministry
(Chairman of Board of Directors) ——ex-officio

Managing Director
and
Board of Management————wholetime

Other Executives

In the State enterprises established as statutory corporations, there is the chairman next to the corporation in the hierarchy of executive authority and after him, is the general manager who is also a member of the corporation. The top control is as follows :—

Corporation

Chairman (official or non-official)

General Manager (whole-time servant and a member of the corporation)

Other Executives

Similarly in the departmentally administered units, it is found that some committee or board has been set up to control the affairs and working of the undertaking with an executive head to carry out the policies and instructions as in the case of the U.P. Precision Instruments Factory (P.I.F. Committee), Government Cement Factory (C.F. Board), Posts and Telegraphs (P & T Board), and the Ordnance Factories (Defence Production Board). The Indian Railways are managed by the Railway Board which is both a policy board and an executive board.

COMPOSITION

Mr. A. D. Gorwala has made two broad statements with regard to the composition of the board of a State enterprise. Negatively, the composition of the board should not be such as to obscure the essential condition of autonomy. Positively, the composition of the board should be such as to subserve only one purpose, that of good and efficient direction in the public interest. From the former, three things follow :—

1. That the membership of the board must be closed to certain categories of persons, *e.g.*, M.Ps, M.L.As, VIPs *etc.*, so that the overlapping of responsibility may be avoided and the integrity of political life may be maintained ;
2. That the ministers should not be members; and
3. That there is no room for departmental representatives and display directors on these boards as their presence on the board will give rise to control and interference from the backdoor and it will result in the destruction of autonomy.

Viewed from these angles, we find that there is complete negation of these principles in our country. The membership of the board is open to M.Ps and M.L.As; the ministers, secretaries and departmental representatives are serving on these boards as chairman and members in their ex-officio capacities.

It is seen that, in the majority of cases, the secretary or joint secretary of the parent ministry is kept on the board as chairman. This practice is invariably being followed in the case of the Indian Telephone Industries, Nahan Foundry, Hindustan Aircraft, Hindustan Cables, Bharat Electronics, U.P. Government Precision Instruments Factory and many more. Even the ministers are heading the boards of some of these enterprises. The examples of this practice are to be found in the cases of the boards of the Ordnance Factories, National Industrial Development Corporation, Mysore Iron and Steel Works and the U.P. Government Roadways. Precisely enough, the Government officials are kept on the boards in majority or in full so as to shape the policy from the Government or the official point of view.

Normally, three reasons are advanced in favour of having secretariat officials on the boards:—

1. The main reason for this arrangement, as is very often advanced, is that the entire or major part of the capital is provided by the Government and, therefore, it is considered to be a satisfactory arrangement for a State concern to be run by a board consisting, all or mostly, of officials;
2. Another reason is that since most of these enterprises are passing through early phases of their development and as such, are not yet self-sufficient financially or otherwise, it is considered convenient to associate officials who have a hand in negotiation with foreign collaborators;

3. Lastly, some of these factories have been set up primarily to provide goods for Government departments and not for sale to the public on account of which the user departments have been represented on the boards.

This, by itself, may be a sound policy, since the State enterprises belong to the State and policy of the State can best be interpreted and implemented by its officials. But it is not always a wise policy. It has its own inherent defects. This purely official element leads to a greater degree of ministerial interference. Moreso, the official chairman or the director does not find ample time to devote to board's affairs. The role of the secretary of the parent ministry is difficult one in the entire field of companies and corporations. If he is the chairman of a particular concern, he may make both the board and the managing director useless instruments. It is difficult to bear a double hat-one as representative of the Government and the other as representative of business. Hence, the continuous association of Government officials with autonomous corporation and companies in the public sector should be discouraged.

During the last decade, it has been a usual practice to have a few non-officials on the board of directors. Such a practice is of great benefit both to the particular enterprise and the public. There are three non-officials on the board of directors of the Bharat Electronics. It is noted with satisfaction that the Chairman of the Air India International is an eminent industrialist and the Chairman of the Bombay State Road Transport Corporation is also non-official. The Estimates Committee of Parliament has, many a time, suggested a gradual replacement of officials by non-officials such as industrialists, scientists, chartered accountants etc. Even in the case of the Ordnance Factories, the Committee has suggested inclusion of two or three industrialists on the board.

We feel that such a step is absolutely essential so as to enable a fresh business-like and scientific outlook to be brought to bear on the affairs of these enterprises. These public concerns being in charge of officials with no financial stake cannot run uninterruptedly and successfully without a strong and effective non-official representation. The suggestion of the Estimates Committee (16th report) that at least 25% of the share capital of State undertakings should be available for subscription by public is sound both in theory and principle in this direction. A tendency towards "non-officialisation of State enterprises" will always be welcomed in the socio-economic environments of a country like ours.

LEGISLATORS ON THE BOARD

In no public corporation, legislators are debarred from being appointed or continuing as members of the governing board except in the case of the Damodar Valley Corporation and the Reserve Bank of India. There are M.Ps and M.L.As on the boards of some enterprises. There is one M.P. on the Board of the Sindri Fertilizers, another on the Board of the Hindustan Shipyards. Four legislators are on the Board of the Mysore Iron and Steel Works and two on that of the Bombay State Road Transport Corporation. One M.P. has recently been appointed on the Board of the Indian Oil Refineries as Chairman and besides him, there is one M. P. as a director.

There are people who condemn this practice saying that it will affect the integrity of political life adversely. Once an M.P. or M.L.A. is appointed as Chairman of a public enterprise, he may feel embarrassed in discussing in Parliament or in public, the affairs of the organisation concerned in the manner in which he may otherwise do. The contention of those who favour it is that it is democratic and provides a check on the exercise of power and ultimately serves the same purpose as the presence of an official on a private board of directors. It is also said that it will be unfair to deny a deserving person of such a responsible post purely on grounds of his being an M.P.

We feel that such appointment of legislators will result in the overlapping of responsibility. It will be dangerous in the sense that the members of Parliament on these boards will have to obey the directives issued from time to time by the Government. This will undermine their freedom and make their position in Parliament anomalous. After all, the legislators are expected to work full-time and not to serve elsewhere but to devote themselves fully to the legislative work. The Krishna Menon Committee is specially emphatic against the appointment of members of Parliament on the board of management because "such membership, even if it carries no emoluments, carries much power and patronage". An M.P. is part of the organ of public control and is the exponent of public criticism in Parliament. "As a director or part of a concern's administration, he is responsible for the very conduct and affairs which Parliament and therefore he, is called upon to examine, criticize and judge."

It is significant to note in this connection that almost all the English Acts have a uniform position to the effect that membership of Parliament is a disqualification for being appointed as a member of the governing board.

CHAIRMANSHIP OF THE BOARD (4 BROAD PRINCIPLES)

1. It does not matter whether it is an ICS officer or a businessman or anybody else who is appointed as the head of a State industry. What matters is that the man should be of outstanding abilities. He should not hold two posts at the same time.

2. The Chairman of the State undertaking should have direct access to the concerned ministry or direct contact with the minister concerned. This is a system which will preclude the tyranny of a deputy secretary over an outstanding public figure.

3. As far as possible, he should be in full-time employment.

4. He should not serve as the chairman of the board and the executive head of an undertaking simultaneously.

SIZE OF THE BOARD

The statutory conditions relating to the boards of the various institutions are not uniform in regard to the number, tenure or the qualifications of members. The practice usually followed is that the members or directors of the board are chosen by the departmental minister of the Central or State Government. The provisions to determine the number of the directors to be appointed are made in the articles of association of the companies and nationalisation acts. Practically, all the boards have upper and lower limits of members within which the minister has discretion. These minima and maxima have no fixed rules.

Such a flexibility of number is undoubtedly an advantage in relation to a governing board. On the whole, the boards should be of a reasonable size and the main points between the upper and lower statutory limits provide, in most instances, a small compact team. Rigidity cannot and should not be resorted to, and what is the reasonable size depends absolutely on the size of a venture and its particular circumstances. However, the rules in this respect should be a bit liberal and like the English Acts, in all the statutes responsible for the establishment of State enterprises, upper and lower limits should be provided and it should be left to the appropriate appointing authority to decide the exact number of members to be appointed.

QUALIFICATIONS

No specific statutory qualifications have been imposed in the case of any of the public corporations set up in India except the Bombay State Road Transport Corporation, in which case positive qualifications are stipulated in the Notification issued by the State Government under the Road Transport Corporation Act, 1948. So far as undertakings under company form of management are concerned, their articles of association do not lay down any specific qualifications, although it has been clearly provided in some cases that a director shall not be required to hold any qualification shares.

In the matter of disqualifications for the appointment of directors on the boards, the statutory provisions are normally similar in nearly all the cases. The usual disqualifications are lunacy, unsound mind, insolvency, continued absence for a definite period from board's meetings, conviction under some offence, any interest, direct or indirect or participation in the profits of any contract with the company etc.

We feel that merit should be the highest qualification and no other consideration which affects selection by merit—commercial, provincial, religious, political and even otherwise, should be taken into account before such appointment. The directors of State undertakings should have "the vision of the poet, the zeal of the pioneer and capacity of a practical administrator". There are no two opinions on the issue that element of purity in appointment should not be lost sight of and the appointing authority should never be allowed a hand to appoint those whom they can influence and ask to submit in accordance with their desires and expectations.

APPOINTMENT AND REMOVAL

Here again, the usual practice is that the right of appointing or removing directors vests in the Central or the State Government as the case may be. The directors are nominated and appointed by the President of India to the boards of those companies which are wholly owned by the Central Government while in those companies where the State holds major share, this right is conferred upon the Government usually in proportion to the capital investment.

The power of removal is reserved with the appointing authority, being the only or major shareholder. Much depends upon discharging duties faithfully and diligently by the members and if they fail in doing so, they should be removed from the active services of the enterprise. Some of the Acts provide that a member may be removed from office "if he fails or is unable to carry out his duties". Such a provision is found in the statutes of the Delhi Transport Service and the DVC. There is need for inserting similar provisions in the various statutes of the undertakings so that stability of character and integrity of purpose may be maintained in the administration of the national projects.

No specific rules and procedures can be laid down in this respect, but it can be said that there is every likelihood of misusing this power of appointment by the minister concerned. The mere fact that the minister may try to 'seduce' members and bring them under his obligation by offering such positions has raised some issues of vital importance. We feel that the public and press should exercise proper vigilance through Parliament so as to ensure that great care and caution have been used in the appointment of members to the governing board.

REMUNERATION

The provisions in this respect are also not uniform in the case of all the statutory corporations. In the case of the DVC, Air Corporations and State Bank of India, the Acts provide that the members will be paid such fees and allowances for attending the board meetings as may be prescribed. In no public corporation, the members of the governing board have been full-time paid members except those of the DVC (The Chairman used to receive Rs. 4,000/- and a member, Rs. 2500/-p.m). Now, this Board, too, has been reconstituted on a part-time basis. In other cases, they receive nominal fees or allowances for attending meetings from time to time.

Availability of suitable personalities is the main ideal and therefore, if good men are wanted especially from business, there should be no objection to paying sufficiently high salaries. "The issues at stake, the successful running of existing Government industries and further industrialisation by Government, are sufficiently important to justify the grant of such emoluments as may be necessary to obtain the most suitable men. There should be no question of spoiling the ship by stinting a haporth of tar."

AUTONOMY

One of the problems of developing industries in the public sector is the question of 'autonomy' which makes possible effective decisions particularly at the board level. In this context, it may mean a wholly unprecedented degree of delegation of authority to the board by the appropriate ministry to make decisions. The fullest autonomy combined with the completest control is absolutely essential.

In the State Enterprises in this country, there is a controversy around the term 'autonomy' for the governing board. This is why a strong criticism is usually levelled against them that the various enterprises established so far are more or less extensions of departments with very little of business experience or procedure and run almost on the same pattern with minor changes here and there, as any department of the Government.

The history of the DVC appears to have been a series of unedifying episodes in which the Corporation has had to use a great deal of its energies in attempting to maintain its autonomy. It is attempted to reduce the Corporation to the position of a department subordinate to the secretariat. Budget grants, foreign exchange allotments—all these have furnished occasions for disputes.

What is needed, therefore, is the *de facto* autonomy. This should be the basic approach in future.

CONCLUSION

State enterprise in India is on trial. During a brief period of hardly more than a decade, it has made a commendable advance. As pointed earlier, there are basic defects in the top management at the board level. They should be removed to ensure a more efficient and economic working. It can be possible if due importance is given to the appointment of governing boards. It must be remembered that "the Board is the spearhead of the public corporation. It should be as much the master of the corporation as it is the servant of the public. For the former it is responsible and to the latter it is answerable".

THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT IN OPERATION

K. K. SHARMA, M. A., Ph. D.
Professor of Commerce, Meerut College, Meerut.

Article I of Articles of Agreement of the I.B.R.D. mentions the following purposes of the Bank :

(I) "To assist in the reconstruction and development of territories of members by facilitating the investment of capital for productive purposes, including the restoration of economies destroyed or disrupted by war, the reconversion of productive facilities to peacetime needs and the encouragement of the development of productive facilities and resources in less countries.

(II) To promote private foreign investment by means of guarantees or participations in loans and other investments made by private investors; and when private capital is not availale on reasonable terms, to supplement private investment by providing, on suitable conditions, finance for productive purposes out of its own capital, funds raised by it and its other resources.

(III) To promote the long-range balanced growth of international trade and the maintenance of equilibrium in balances of payments by encouraging international investment for the development of the productive resources of members, thereby assisting in raising productivity, the standard of living and conditions of labour in territories.

(IV) To arrange the loans made or guaranteed by it in relation to international loans through other channels so that the more useful and urgent projects, large and small alike, will be dealt with first.

(V) To conduct its operations with due regard to the effect of international investment on business conditions in the territories of members and, in the immediate post-war years, to a peacetime economy."

In short, the Bank was set up to promote reconstruction and development of the economies of the member countries by facilitating the investment of capital for productive purposes. It also facilitates private foreign investment by participating in loans made by foreign investors or by giving guarantees on them. It also seeks to bring about a long-range balanced growth of international trade and to maintain equilibrium in balance of payments. It is also to arrange loans through other channels and it is to conduct its operations in such a manner as to bring about a smooth transition to peace economy.

According to the address of Mr. Black, President, World Bank to the Institute of Bankers, London in December 1959, the British representatives at

Bretton Woods supported the establishment of the Bank with three main objectives in view. Firstly, the Bank was to provide a new source of long-term development capital. Secondly, it would, by its operations, prove "that hard-headed lending procedures could bring a profitable return on the money invested, and thus restore the confidence of private investors in overseas investment". Many defaults on foreign loans in the 'thirties were due to the fact that lenders were less than prudent in their methods in lending to less devoloped countries. Thirdly, the Bank "was to provide another fount of dollars" and in the immediate post-war period it was to serve as a channel for funds drawn from the United States Government and the United State private investors. By a disbursing dollars, the Bank would serve as a long-term addition to bilateral American assistance and to the International Monetary Fund.

The economic and financial experts of the Allied Nations recognised early in World War II that it would be necessary not only to attend to the immediate relief and physical reconstruction of economies disrupted by the war but also to "the expansion, by appropriate international and domestic measures, of production, employment, and the exchange and consumption of goods which are the material foundations of the liberty and welfare of all peoples......" *Hence foundations of the I.M.F. and the I.B.R.D. were laid. The former was to provide for international currency stability by helping to finance its member's temporary balance of payments deficits and by providing for the progressive elimination of exchange restrictions and the observance of accepted rules of international financial conduct ; while the latter was to help finance the reconstruction and development of member countries.

It was realized that the requirements of the under-developed areas of the World would be so great and the risk so large that private capital would be unable to fulfil them without some form of Government-guarantee. The Bretton Woods Conference, therefore, felt that the problem could best be solved by creating a new type of international investment institution which could make or guarantee loans for productive reconstruction and development projects, both with its own capital funds and through the mobilization of private capital. It was also realized that it should be provided with a financial structure under which the risks of such investment would be shared by all member governments roughly in accordance with their economic strength.

The emphasis from the beginning was not so much on what the Bank could lend directly out of its paid up capital as on the concept that the Bank would provide a safe bridge over which private capital could move into the international field. It is one of the unique features of the Bank that although it is an inter-Governmental organization, it must rely upon the private investment community for most of its financial resources.

As is pointed out below, 80 per cent of the capital remains uncalled to be kept in reserve to be called up only to meet the obligations of the Bank in case of need. This provision was no innovation in itself. In the early war-period several loans to European Government carried the guarantee of other European Governments. The new feature of the guarantee written into the Bank's charter was the sharing of the risk on an international basis. Under this, each member of the Bank, borrower or lender, is responsible upto the amount of its capital subscription for the Bank's outstanding borrowings and guarantees. The amount of the risk guaranteed is, however, limited to the total unimpaired subscribed capital, reserves and surplus.

The errors of the thirties were avoided regarding the use of the Bank's resources. The international lending of the inter-War period had made little contribution to the productive capacity of the borrowers. The loans were made at high interest rates without reference to the ability of the borrowers to service new or even existing debt. These lending practices led to widespread defaults in the 1930's.

The Bank Charter, therefore, contains many protective provisions goAerning loans to be made or guaranteed by the Bank. *Firstly*, the loans must be for productive purposes and, except in special circumstances, must be to finance the foreign exchange requirements of specific projects of reconstruction or development. The merits of the projects financed have to be carefully studied and arrangements have to be made to ensure that the most useful and urgent projects are dealt with first. Loans for private parties must be guaranteed by the Government of the member country in whose territory the project is located. In making loans, the Bank is to act prudently and has to see that the borrower or the guarantor as the case may be should be able to meet its obligations under the loan. The Bank has also to make arrangements to ensure that the proceeds of each loan are used only for the purposes for which the loan was granted consistent with considerations of economy and efficiency and without regard to politil or other non-economic considerations.

There are two other important provisions of the Charter which deserve mention. Firstly, there is a prohibition against tied loans. The Bank is not impose, any conitdions requiring the proceeds of its loans to be spent in the territories of any particular member or members. *Secondly*, the bank must be satisfied before making or guaranteeing any loan, that in the prevailing market conditions the borrower cannot obtain the loan from private sources on reasonable conditions and terms.

In the beginning, the Bank provided finance for reconstruction. The first loans of the Bank in 1947 totalling 497 millions were made to four West Europaen countries to sustain the volume of imports for some time to prevent a disastrous drop in production and possible economic collapse. When the European Recovery Programme came into operation, the Bank began to finance projects in the less developed areas of the world. Since then, this has been the principal area of concentration of Bank activities. Most of the Bank's development loans have been for basic facilities like power, transporrtation, irrigation and reclamation. Up to December 31, 1953, the Bank had made 96 loans in 28 member countries and three overseas dependencies. The amount of the loans came to 1.8 billion dollars, of which roughly about 1 billion was for development projects located outside Europe.

The Bank has made efforts to fulfil these objectives by encouraging economic growth in various countries, particularly those which are less developed. Before referring to the steps taken by the Bank to help financing economic growth of countries, a word may be said about the resources of this instiution. The Articles of Agreement provided for the Bank's capital to be divided into three parts. The first part was the payment in gold or dollars of two per cent of each member country's capital subscription. The second slice of the subscription, 18%, was to be paid in the local currency of the member country. The third slice of 80 per cent was not paid in; but it could be called by the Bank only when required to meet its obligations. In other words, the 80 per cent portion is a sort of guarantee fund to support the Bank in borrowing from private investors.

Thus the main source of lonable funds of the Bank would be the sale of Bank obligations to investors. Government subscribed capital was limited and also quite small in relation to the needs of the world for developmental finance. This capital structure implied two things: *Firstly*, the Bank would have to borrow funds from private investors to carry out its purposes. *Secondly*, inevitably the Bank would have to conduct its affairs in such a way as to command the support and respect of private investors. No other provision of the Articles of Agreement has had a more fundamental effect in shaping the Bank's character than the design of its capital structure.

The provision that 18% of the subscription of each member Government would be paid in local currency was perhaps designed because of the world-wide shortage of gold and dollar reserves at the end of the War. What is important to emphasise is that this provision constituted an immediate restriction of the Bank's loanable funds. Further, the intensity of this restriction was intensified by the fact that the Bank could use the local currency subscriptions for lending only with the consent of the member country concerned.

These restrictions have continued to affect the Bank up to the recent past. The Bank has been able to obtain 18% of the local currency subscriptions only since 1957 in a large measure. For instance, the total subscription to be paid by Britain and the Commonwealth countries which are self-governing would come to about £ 150 millon or $ 420 million. *With the exception of Canada, which released all of its 18% for the Bank's use in early years, the Bank had to wait for about thirteen years before it could use the local currency component which made up most of that total. Britain released her 18% of the local currency quota for lending only in October 1959 and some Commonwealth countries have not yet done so. The countries of Western Europe have released the local currency portions of their capital subscriptions only after 1957.

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* Read pages 3 and 4 of the Address by E. R. Black, President, I. B. R. D. to the Institute of Bankers, London, December 1, 1959.

A very large portion of the loanable funds of the Bank comes from the sucessful issues of the securities. Up to December 1959, the Bank made about successful issues of its securities. In August 1959, the Bank placed a new issue 49 of $ 100 million entirely outside the united States and it placed these bonds with 63 institutional investors in 35 different countries in eight of which no Bank issue had been made before. For the first time, the Bank sold a 200 million deutsche mark issue in West Germany, the largest public issue yet sold by the Bank outside the U. S. A. In 1959, over 50 per cent of the funded debt of the Bank outstanding is held in 42 different countries. Included are some $ 680 million in dollar bonds and notes, or about 40 per cent of the Bank's dollar debt outstanding.

Over and above the sales of bonds the Bank has attracted about $ 590 million equivalent from some 150 commercial banks, insurance companies, and private and public financial institutions who have participated in lending without the guarantee from the Bank in one way or another. These participants received from the Bank's borrowers more than $ 260 million in principal repayments up to the end of 1959.

Another $ 280 milion in principal repayments have been made directly to the Bank and have become available for further lending. Not only have there been no defaults, but some countries have retired their obligations before maturity. For instance, the Netherlands, which was the Bank's biggest borrower in 1949 retired its obligations to the Bank over ten years ahead of the longest maturity outstanding, and it is now one of the important suppliers of resources to the Bank.

There has been a great expansion in the Bank's activities during the last ten years. In 1949 there were 48 member nations; in 1959 there were 68. In 1949, the Bank was financing projects in only eight countries; in 1959 it was financing projects in 50 countries. The Bank's outstanding indebtness in 1949 was less than $ 250 million; in 1959, it was $ 2,000 million. Over the decade member countries other than the U.S. released in a usable form nearly $ 740 million from their 18 per cent capital subscription and this is growing all the time. In 1959, these additional releases were equivalent to $ 134 million. They brought to almost $ 1,500 million the total of member countries subscriptions including the 2% subscribed in gold or dollars which have been lent or are available for lending over the next five years. The net earnings of the Bank rose from $ 10.6 million in 1949 to 46.5 million in 1959 and during the same period, the total reserves rose from $ 22 million to $ 433 million.

Over and above the initial reconstruction loans the Bank has committed in all about $ 4 billion equivalent in development loans and about a third of its commitments was made in the last two years. It may be pointed out that the economic climate in which the Bank's operations were conducted was one of adversity for many countries. In fact, there have been difficulties in financing the investment in under-developed countries. Rapid economic develpment all over the world has created a shortage of capital. Countries which go political independence are making efforts to raise the living standards of their people. Better living conditions in the industrialised countries have made the under-developed countries dissatisfied with their low national incomes and they are making efforts to raise the national and *per capita* incomes. It is equally to the interest of the developed countries to encourage economic growth in under-developed countries. Hence rapid economic development has created an over-all shortage of capital resources. Further, the attitude of many under-developed countries to foreign finance is not such as to inspire investor confidence. Their taxation and financial policies require revision and readjustment. This attitude is now gradually changing. Moreover lower prices for raw materials have adversely affected the foreign exchange earnings of the less developed regions, and thereby reduced their ability to service new borrowing abroad. Further, the investment of a given sum in an industrial country is less risky and may even produce a quicker and larger return than the investment of the same sum in a less developed country. These are important factors operating against a flow of capital into the less developed countries on a commercial basis.

It may, however, be pointed out that the development needs of the under-developed countries cannot be ignored. The industrial countries have shown that a higher standard of living is attainable, and have persuaded the mass of the people all over the world that poverty, hunger and disease are not the inevitable lot of mankind. Nor can the industrialized countries ignore the threat to world peace which arises from the economic ferment of the under-developed countries. Further, the industrial countries have large overseas investments which they must protect, and they also see in the less developed areas the mass markets of the future on whose development they must depend.

The I.B.R.D. is the main agency through which this international flow of capital from the developed regions to the under-developed regions can be and is being facilitated. Inspite of the above factors the flow of capital into the less developed areas has been well-maintained. It was about 5 billion dollars in 1959 and was higher than in 1956 though less than in 1957. This contributed to the financing of imports and enabled many less developed countries to avoid substantial curtailment of investment and to minimise reductions in their economic growth.

Foreign public debt of the less developed countries in the Bank's membership rose by more than 5 billion dollars between 1955 and the end of 1958.

They experienced an average rise of 15 % in their annual debt service obligations over the same period. The effect of increased debt service and of lower export earnings raised the percentage of export earnings absorbed by foreign debt service payments in the majority of less developed countries from 4.7% in 1955 to 5.7% in 1958.

Reference may be made to the policy of joint operations that is being pursued by the Bank to promote investment during the last several years. The Bank has been combining with the United States investment market by arranging to make a loan coincide with an approach by the borrower to the capital market for additional finance, often for the same project. In 1958 there were five joint operations, involving Austria, Denmark, Italy, Japan and the Union of South Africa. The total amount raised was $ 250 million: Bank loans contributed $ 100 million, $ 130 million came from the market, and the European Investment Bank lent $ 20 million equivalent.

Some recent developments in the world economic scene point to a favourable trend for the immediate future. The most important development is the recovery of the industrial countries from the recession of 1957-58. This should strengthen the demand for primary products. Reference may also be made to the step taken by fourteen Western European countries on 25th May 1959 at establishing external convertibility for their currencies. As a result of this important step, the world has been brought closer than at any time since World War II to the establishment of truly international multilateral payments system in accordance with the objectives of the I.M.F. Fifteen other countries most of which were associated in a monetary area with one or other of the Western European countries that took the initiative in establishing external convertibility, have taken steps to adjust their exchange control regulations to the new conditions.

This new development has led to the fulfilment of one of the important objectives of the Fund, namely, giving confidence in the currencies, thus leading to economic stability. As a result of this, these countries will be able to provide both a growing market for primary products and significant financing for economic growth in the less developed countries.

In 1959 many countries gave consideration to the ways in which new international arrangements could be made to assist in the development process. The United Nations Special Fund and the European Investment Bank began work in this period and the Bank co-operated with both these institutions in theis early operations. Other projected financing organisations included the Arab Financial Institution for Economic Development, January 1959; the Inter-American Development Bank, April 1959 and the International Development Association. These institutions provide capital for the economic development of various regions and the European Investment Bank has participated in joint operations promoted by the I.B.R.D.

The International Development Association is to be administered by the I.B.R.D. in such a way as to distribute I.D.A. funds on easier terms than those asked by the Bank in its normal operations. The Bank will be in a position to make loans to some of its member countries without imposing the same repayment burden on their future balance of payments as is involved in conventional lending. The proposed I.D.A. will have an initial capital of one billion dollars, three-quarters of which will be available for use over the first five-year period. It represents a partnership of the industrialized countries to help the less developed countries. The I.D.A. will be a multi-lateral assistance programme which should not incur the same difficulties which confront bilateral programmes. The Bank promotes multilateral assistance and attaches conditions to assistance to ensure the efficient use of the funds for the maximum development benefit. If the conditions of the Bnk are not acceptable, the Bank does not make the loan. Its sole concern is to promote sound development. This is the principle which underlies the International Development Association. The I.D.A. will be able to maintain high standards in its selection of projects for financing. The only important difference between I.D.A. and World Bank operations will be in the terms of financing. I.D.A. projects will be subject to the same procedures as are used for Bank projects regarding selection, investigation, supervision, *etc.*, and I.D.A. funds will not be devoted to "countries whose misfortunes are largely of their own making, because of faulty economic policies."

In fact, the setting up of I.D.A. is an important contribution of the Bank to promote the economic growth of the less developed countries of the world. The I.D.A. would "promote, by financing sound projects of high priority, the economic development of less-developed member countries whose needs cannot be adequately met under International Bank lending programmes". It will play an important role in the financing of economically worthwhile projects, for which until now the existing institutions do not have suitable funds at their disposal. The I.B.R.D. applies very strict and rigid standards as to the creditworthiness of the debtor and the economic soundness of the project. In granting loans, the World Bank bears in mind the capability of the debtor country to make repayments on its loans in foreign currencies. For this reason, some loans which otherwise could have made an important contribution to a country's economic development could not be granted. The I.D.A. will fill this gap. It will grant loans on specially favourable terms, loans with a long running period, a relatively extended period of grace and low interest rates.

The establishment of the I.D.A. is based on a recognition of the fact that all the investment needs of a developing country cannot be encompassed within what may be called a projects approach. Its needs have to be viewed in their totality in terms of the entire programme which it is implementing. This wider approach is being stressed in farming the provisions of the I.D.A. The Aricles of Agreement of the I.D.A. must provide for payment by the less developed countries in local currencies both initially and by way of repayment. It is only as the productive strength and export capacity of these countries are built up that they can be expected appropriately to sake on a measure of burden on their balance of payments.

The World Bank has carefully observed the principle embodied in its charter that it will not make investments for which private funds can be obtained on reasonable terms. The Bank has, however, tried to lend its support to this kind of investment by sponsoring the International Finance Corporation.

The Bank has established contacts with industrial development banks in a number of member countries. Through them it has come to know something of the numerous small enterprises which are contributing new jobs and new production for a better material life in the under-developed countries. Recently the Bank has announced loans to the Industrial and Mining Development Bank of Iran, the Austrian Investment Credit Company, the Industrial Credit and Investment Corporation of India and the Pakistan Industrial Credit and Investment Corporation.

The Bank also provides technical assistance services which are steadily expanding. They include resident advisers in a number of member countries and a continuing traffic in general survey missions and other more specialised missions. There is the Economic Development Institute of the Bank which was set up in 1955. It is providing a forum for senior government officials to exchange ideas and experiences on common problems. It organises a six months' course for officials from the less developed member countries. The fourth course was held from the end of October 1958 till April 1959. It was attended by 20 senior officials from 18 of the Bank's less developed member countries from Asia, Africa, Latin America and Europe. The seminars of the course were led by a small regular Institute staff, supplemented by outside experts on particular subjects.

The Bank also helps in the solution of international economic disputes. Reference may be made to the negotiation of a settlement between the U.K. and the United Arab Republic of the financial claims which arose out of the Suez incident of 1956. The President of the Bank brought the two parties together on the basis of a compromise acceptable to both sides. Secondly, the Bank brought about a compromise between India and Pakistan over the sharing of the waters of the Indus basin. This dispute has led to an increasingly difficult situation between the two countries since Partition in 1947, and the Bank has been engaged since 1952 in seeking to bring the two Governments to a mutually satisfactory agreement. In engineering plan involving an expenditure of about $ 1,000 million in India and Pakistan partly in foreign exchange and partly in local currencies has been framed and over and above that, financial assistance would be forthcoming from the Bank and from friendly Governments.

In 1959, India was the subject of another initiative taken by the Bank. It was realized early in 1958 that fulfilment of the Second Five-Year Plan was being made difficult by a deterioration in the Indian balance of payments. In August 1958, the Bank called a Conference in Washington of representatives of the Governments of Canada, Germany, Japan, the United Kingdom and the United States. The International Monetary Fund sent an observer to the meeting. As a result, India received additional financial support for the third year of the Plan from all the Governments represented and also from the Bank in the form of loans for railway and power development. There was a second meeting in Washington in March 1959. As a result it was clear that sufficient assistance would be forthcoming to give India reasonable expectations of being able to maintain the momentum of the development programme in the fourth year of the Second Five-Year Plan, and meet essential maintenance needs of the economy without putting undue strain on external reserves.

The Bank's authorized capital was increased from $ 10 billion to $ 21 billion, conditional on the subscription by September 15, 1959, of at least 7 billion dollars, excluding special increases. The new authorized capital would also leave a margin of unsubscribed capital for the admission of new members and for further increases in individual subscriptions. Each member Government's subscription was doubled. The entire amount of the additional subscriptions would be left subject to call. Calls would be made if required by the Bank to meet its obligations on borrowings or guarantees. No cash payments to the Bank were contemplated except those arising from the special additional subscriptions of particular member countries. Additional increases over and above the general 100% increase were recommended by the Executive Directors in the subscriptions of 17 member countries, including Canada, Germany and Japan.

The object of this increase was to provide further large-scale support for the Bank's borrowing operations in the world's investment markets inasmuch as the Bank raises the bulk of its lendable funds through borrowings. The loan commitments of the Bank have totalled $ 4.5 billion; but the subscriptions of member Governments have provided funds directly for only one-third. In these circumstances, the standing of the Bank's credit in world investment markets is of vital importance. The uncalled subscriptions of member Governments would rise from $ 7.65 billion to almost 18 billion. The uncalled subscription of the U.S.A., which the investment market regards as of outstanding importance to the Bank's borrowing operations, would be increased from $ 2,540 million to $ 5,715 million.

In 1959 the Bank made loans over $ 703 million to 19 countries, including India for power, transport and basic industries. Changing conditions in world capital markets, particularly in the United States, led to upward movements in the interest rate on new Bank loans. In July 1958, the rate was 5⅝ ; by September it had risen to 5¾ %, and in May 1959, it was increased to 6 %. Loan disbursements during the year were $ 583 million, the highest figure in the Bank's history. Total disbursements to June 1959 were $ 3,377 million.

The Bank financed 46% of the year's disbursements by drawing upon currencies other than dollars. Loans are repayable in the currencies used by the Bank.

The borrowers place their orders on the basis of internal competition. The following table shows the distribution by countries of the orders placed by bank borrowers :—

Disbursements by borrowers for imports from		Cumulative total to June 30, 1958.	Fiscal year 1958	Cumulative total to June 30, 1959
Belgium	Million $	80.8	13.9	94.7
Canada		120.7	8.3	129.0
France		61.5	22.2	83.7
Germany		201.3	69.2	270.5
Italy		45.9	26.8	72.7
Japan		37.0	26.3	63.3
Sweden		24.7	8.8	33.5
Switzerland		46.6	11.4	58.0
United Kingdom		296.3	87.0	383.3
United States		1,342.7	125.8	1,468.5
Other countries		120.4	23.7	144.1
Totals		2,377.9	423.4	2,801.3
Other disbursements		416.8	159.2	576.0
Grand Total		2,794.7	582.6	3,377.3

Other disbursements include disbursements on loans in which the funds are used for local expenditures or for broad development programmes where the source of the items imported from Bank funds is not specified.

It is clear that the Bank has not only financed reconstruction, but it has financed development programmes in less developed countries. It has also helped in promoting private foreign investment in various countries through its schemes of joint participation. It has widened the field of international saving and investment through bond sales and through technical advice and by making loans to national financial institutions particularly in less developed countries, it has helped the growth of capital markets in them. The Commonwealth countries have got loans amounting to about £530, which means one-third of all the loans made by the Bank. A large volume of investment funds of all kinds is flowing today across national boundries. There has been a great rise in world trade over the past ten years. Further, the number of countries which are mastering the arts of fiscal and monetary control is growing and with this mastery come new public attitude and are fostering it. To-day there is a serious move to broaden the international channels through which new and additional resources may flow into the development of the under-developed countries. Greater emphasis is being laid on multilateral responsibility for these matters.

To encourage international investment, its lending rate should be kept at a lower level; but in view of the growing need for long-term capital for developmental finance, the Bank's lending rate has been raised to 6 per cent. The Bank will have to continue to show results that will maintain investor confidence in its operations. A world shortage of capital affects the Bank in another way. The Bank has a direct confern with the level of interest rates in the various bond markets of the world. The rate of interest the Bank charges to its borrowers reflects the cost of its own borrowing. As pointed out above, the rate charged by the Bank has been raised to 6 per cent. At this rate, many member countries may find it difficult to service large-scale borrowing and their difficulties must increase if the rate has to be raised further.

Further, conventional development loans are made in foreign currency and have to be repaid in the same coin. This can be rendered more difficult for the less developed countries for many reasons. For instance, the large decline over the past few years in the prices of primary foodstuffs and raw materials has had serious effects on the borowing capacity of the less developed countries. With large foreign borrowing by these countries and with falling export receipts there has been a rise in the average ration of their foreign debt service payments to their receipts from exports from 4.7% in 1955 to 5.7% in 1958. This average includes several countries where the ratio had become so high as virtually to bar them from any further borrowing, whatever their needs may be. There are many countries whose resources are so slight or so underdeveloped that they possess very little credit standing, but their needs also are considerable.

This part of the problem has also to be dealt with through international action. It is for this purpose that the Bank is assisting in the formation of the IDA, which has been referred to above. The Bank and the Fund are in a way complementary institutions. One helps the scope of operations of the other. The extent to which confidence is restored in different currencies, long-term investment in those countries can be promoted in as much as lending risk is reduced. The Fund promotes this confidence through its operations. Promotion of long-term investment and setting up of finance institutions in underdeveloped countries helps raising the level of production, investment and employment. That is the bussiness of the I.B.R.D.

THE SYMBOLIC IMAGERY OF SHELLEY : A BRIEF SURVEY

JAGDISH B. SINGH, M. A., Ph. D.
Principal Kisan Degree College, Bahraich.

A special feature of Shelley's poetic image is its frequent use as a symbol. In tracing the influence of Plato and the neo-Platonists on his poetic imagery, one will note how greatly Shelley was influenced by their use of symbols. In their philosophical writings, the 'sun', the 'moon', the 'stars', the 'sea', the 'ocean', the 'fountain', and the 'cave', and many other similar objects have been used as symbols. They used images of these objects to communicate ideas and concepts which they wanted to make intelligible to others. Shelley, besides borrowing many of their symbols, learnt from them a method of creating his own. As his poetic powers matured and as he moved more and more into the world of metaphysical thoughts, he had to take ever greater pains in the search of images that could represent his ideas, concepts and thoughts. As a consequence, his poetic imagery gained very largely in expressive power and became, in course of time, a real instrument of communication.

It may be suggested that the greatest difficulty in the way of Shelley's readers in grasping the significance of his poetry has arisen from an unfamiliarity with the symbolism of his imagery. It is in his symbolic images that Shelley has embodied the best of his thoughts and the most original of his conceptions. To interpret his poetry too literally is merely to accept the husk and miss the grain. One has to probe the image to get at the significance.

The symbolic implications of the individual images in Shelley's poetry cannot be dealt with in detail in this short essay. The present essay is devoted only to a study of the development of Shelley's symbolism from his early "Queen Mab" to his late "Adonais".

"Queen Mab", written in 1812, is one of the earliest of Shelley's poems in which some images are found to bear the character of symbols. One of the images, greatly loved by Shelley, and later, very frequently used by him, is that of the "crumbling ruin" of a palace with 'ivy' or other wild plants clinging to its 'roofless walls'.[1] The symbolic significance of this image has been made explicit by Shelley himself in his letter to Elizabeth Hitchener, written on January 26th, 1812.[2] Shelley so impatiently waited for the fall of the tyrannical

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1. "Queen Mab", IX, 96-102.
2. Shelly's letter contains this key-sentence : "I shall try to domesticate in some antique feudal castle whose mouldering turrets are fit emblems of decaying inequality and oppression, whilst the ivy shall wave its green banners above like Liberty and flourish upon the edifice that essayed to crush its root". ("Letters from P. B. Shelley to Elizabeth Hitchener", Bertran Dobell, London, 1908, PP. 198-199).

power that often, in his imagination, he seemed to see the palaces and castles of kings lying in ruins, with their 'crumbling walls' overgrown with 'moss' and 'weeds' and winds blowing freely through their halls, singing, as it were, the songs of liberty. Preopupied by such thoughts, he makes his Loan and Cythna, in "The Revolt of Islam", find shelter in a ruined hall "o'er whose roof/ Fair clinging weeds with ivy pale did grow,/Clasping its gray rents with a verdurous woof".[1] The old man, who delivered Loan from his captivity, takes him to a tower of stone which is a "crumbling heap whose portal dark/ With blooming ivy-trails was overgrown".[2] In Epipsychidion, we find Shelley selecting for himself and his Emily a deserted palace of which "all the antique and learned imagery/ Had been erased, and in the place of it/ The ivy and the wild-vine interknit/ The volumes of their many-twining stems".[3]

From this it should be evident that Shelley's imagery is not to be taken too literally; behind apparent descriptions of things are concealed, in images, his preconceived notions and ideas. That quite early in his poetic career he became aware of the extensive powers of this instrument is evident from the growing number of symbolic images used in each successive poem written after the "Queen Mab". Even in this early poem, as he reached the last section, his use of symbols increased considerably. The "melancholy winds" singing death-dirges through the "lone cathedral's roofless aisles"[4], the "ruddy children" playing "within the massy prison's mouldering courts"[5], "the green ivy and the red wall-flower,/That mock the durgeon's unavailing gloom"[6], "the broad beam of day" shining "on the pure smiles of infant playfulness"[7] and the "ivy-fingered winds and gladsome birds" making resonant the vault with their "soothing notes"[8] etc.,—all these images are pregnant with symbolic implications.

In the instances, cited above, the 'roofless cathedral', the 'mouldering massy prisons' and the 'broken dungeon' and vaults', symbolise, in their ruin, the decay and fall of the tyrannical powers, while 'the malancholy winds' singing dirges through the 'roofless cathedrals', the 'ruddy children' playing within the courts of 'mouldering prisons', the 'ivy' and 'wall-flowers' mocking with their bright flowers the gloom of the dungeons, and the birds making resonant the vaults, symbolise the advent of liberty and the consequent happiness prevailing in all those palaces where terror and misery reigned once.

By the time that Shelley took up the composition of his "Alastor", he had very considerably perfected his poetic instrument. This poem, though apparently a mere description of the wanderings of a poet, is found, in the final analysis, to deal with a more serious subject, the search of a person of an inquisitive mind into the mystery and meaning of life.

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[1] "The Revolt of Islam", VI, xxvii, 2574-76.
[2] *Ibid.*, IV, i, 1415-17.
[3] 'Epipsychidion", 498-501.
[4] "Queen Mab"., IX, 103-104.
[5] *Ibid.*, IX 114-115.
[6] *Ibid.*, IX 117-118.
[7] *Ibid.*, IX 123-125.
[8] *Ibid.*, IX 127-128.

The implications of some of the symbols have been made explicit by the poet himself. Thus, the 'stream' which the poet pursues is said to image his own life. Its "inaccessibly profound source", its aimless wanderings to an unknown destination, its "darksome stillness", its "dazzling waves", its "loud and hollow gulfs", its "searchless fountain, and invisible course"—all these are said to have each their "type" in man's life.[1] The 'sky' to which the waters of this stream may tend in the form of a cloud and the 'ocean' into which its waters fall and lose their identity are both symbolic of the universal soul in which, in Shelley's view, the individual soul merges and has its being after its separation from the body.

Other images of the poem have also similar implications. It would not require much straining of the mind to understand that the images of "the labyrinthine dell"[2], of the rocks lifting their "black and barren pinnacles"[3], of the precipices "obscuring the ravine"[4] and of "black gulfs and yawning caves" are all indicative of the difficulties, physical or otherwise, that a man has to encounter, in his life.

Throughout the poem there is maintained a perfect congruity between the subject and the imagery that unfolds it. To comprehend the nature of human life in its entirety, one has to watch its behaviour in childhood, youth, manhood and old age and one has, besides, to be able to know about it after death as well as before birth. The scene through which the poet passes, comprising the 'vales', the flowering meadows', the 'thick woods', the 'bare rocks' and 'precipices' etc., symbolises, in its various aspects, the various stages of human life. Take, for instance, the images describing the last stage of the poet's journey. In this stage the "forest's solemn canopies"[5] of the earlier stage are changed for "the uniform and lightsome evening sky".[6] Certainly, in the last stage of man's life, on the earth, the splendour of manhood and its glory gives place to the quiet serenity of old age. The 'uniform and lightsome evening sky' is sug-gestive of this calm serenity of the approaching old age. Again, in this stage the wandering poet finds 'grey rocks peeping from the spare moss' and stemming the struggling brook.[7] Obviously the significance of this image is that old age, which is marked by sparse grey hair, impedes the flow of life, as the 'grey rock' is found by the wandering poet to impede the flow of the brook. In this region, the wandering poet sees that

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1. See "*Alastor*", LL. 502-508.
2. *Ibid.*, L. 541.
3. *Ibid.*, L. 545.
4. *Ibid.*, L. 547.
5. *Ibid.*, L. 525.
6. *Ibid.*, L.526.
7. *Ibid.*, LL. 527-28.

tall spires of windlestrae
Threw their thin shadows down the rugged slope,

"Alastor", *LL. 528-29*

Certainly, the tall windlestrae are indicative of the infirmity of the old age, and the throwing of the shadows by them down the rugged slope, indicates the attachment of old men, in spite of all their infirmity, to the hard life in this rough world.

The wandering poet further sees that

gnarled roots of ancient pines
Branchless and blasted, clenched with grasping roots
The unwilling soil.

Ibid., *LL. 530-532*

The image of the 'branchless and blasted pines' suggests the decrepit condition of men in their advanced old age. Their grasping of the unwilling soil with their gnarled roots indicates old men's strongest longing to stick to this world which seems, on its part, to be extremely unwilling to retain them.

The thread of symbolism runs throughout the poem. The solitary pine tree stretching "athwart the vacancy / Its swinging boughs" and "to each inconstant blast/yield one only response"[1] is the fit symbol of the man whose soul aspires to fly up to its original home, while his senses yet remain responsive to the influences of this world. The "tranquil spot", which is "the haunt/ of every gentle wind whose breath can teach/ The wilds to love tranquillity"[2], is the symbol of that tranquil state of the mind which it gains when it becomes responsive to heavenly influences.

The thread of symbolism runs throughout the poem with a consistency which shows Shelley's perfect grip on the subject and his skill in the use of the poetic image as an instrument, not only of literal description, but of the communication of his profoudest thoughts and conceptions. To regard "Alastor" merely as a descriptive poem is to miss its true import. Its poetic imagery has to be reinterpreted to bring out the underlying train of thought.

Shelley's next great poem is "The Revolt of Islam". By the time he began writing this poem, a great change had taken place in his philosophical outlook. From the materialistic philosophy of Holbach and Comte which held him when he wrote his "Queen Mab", he had moved considerably in the direction of Plato's idealism. A radical in political outlook, he held Godwin as his master. From a union of the political radicalism of Godwin and the philosophical idealism of Plato and his followers, he evolved a political philosophy of his own. Its essence is that political liberty is possible as much through the actual revolt of the people against their tyrants as through effecting a change in the mind of man. In "The Revolt of Islam" Shelley seems to put to test this dual principle. The poem is thus a story of action in which contemplation finds a significant place; and even though the revolt actually ends in failure (in the wordly sense of the term), the note on which the epic story ends and the note which persists throughout is one of assurance.

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[1] *"Alastor"*, LL. 561-64.

[2] *Ibid.*, LL. 586-88.

In his Preface to this epic poem, Shelley describes it to be "a succession of pictures illustrating the growth and progress of individual mind aspiring after excellence, and devoted to the love of mankind;..........."[1], and, throughout the story, one can mark a definite attempt of the poet at delineating the states of human mind under the influence of varying passions and at presenting a consistent philosophy of love. Many of the phenomena of nature described in the poem would be found to admit of symbolic interpretation.

The poem opens with the description of a terrible tempest shaking the "firm earth / As if by the last wreck its frame were overtaken".[2] This tempest is followed by lightning, hail and darkness. These phenomena very aptly symbolise the political and social cataclysm of the age of Shelley.

Then follows the aerial conflict of the Eagle and the Serpent. Few events have been described so vividly and so picturesquely by Shelley. The combat is equally matched. Sometimes, the Snake "around his enemy's neck/ locked in stiff rings his adamantine coil/ Until the Eagle, fainst with pain and toil,/ Remitted his strong flight"[3], and, sometimes, "the vast bird would shake/The strength of his unconquerable wings/As in despair, and with his sinewy neck, /Dissolve in sudden shock those linked rings"[4]. The fight lasts almost a whole day till, at last, the Serpent, "lifeless, stark, and rent"[5], falls to the sea and the Eagle passes over the continent with "clang of wings and scream".[6]

This combat of the Eagle and the Serpent very appropriately symbolises the eternal conflict of Good and Evil in the world. The wider symbolic significance of this conflict has been explained at length by the woman with the serpent in her breast in the poem. The conflict may also have a narrower significance. It may represent the struggle of the French people against their king for liberty. The Eagle, in this struggle, may represent the king, and his allies and the Serpent the people grovelling in misery. This conflict, as Shelley states, takes various forms. Sometimes it takes the form of an overt action "when mankind doth strive/ With its oppressors in a strife of blood"[7], but, more often, it takes the form of an internal struggle in the minds of men "when free thoughts, like lightnings, are alive, / And in each bosom of the multitude/ Justice and truth with Custom's hydra brood/Wage silent war".[8]

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1. Preface to "*The Revolt of Islam*" (Shelley's "*Political Works*" ed., by Thoma Hutchinson, p. 32.)
2. "*The Revolt of Islam*", I, i, 135.
3. *Ibid.*, I, xii 228-231.
4. "*The Revolt of Isiame*", I, xiii, 239. 242.
5. *Ibid.*, I, XIV 248.
6. *Ibid.*, I, XIV, 250-252.
7. *Ibid.*, I, XXXIII, 415-16.
8. *Ibid.*, I, xxxiii, 417-420.

Symbolic images abound in this poem. Many of these relate to mind and its processes. The mind itself is symbolised by the image of the 'ocean'[1], the 'fountain'[2], the cave'[3], the 'wave'[4], the 'mirror,[5], the 'book'[6] and the 'mine'[7]; thought is symbolised by the 'waters' of the fountain,[8] the 'waters' of the ocean,[9] and the 'boat' flying fast on a swift stream,[10] and the troubled states of mind are symbolised by "unreposing billows"[11], the "troubled stream"[12], the gulf and the void,[13] the "shoreless sea"[14] and the "sky sunless and planteless"[15]. The 'whirlwind'[16], the 'tempest'[17] and the 'hurricane'[18] also represent psychic disturbances; wisdom is symbolised by the image of the 'tower'[19] and 'light'[20]; hope by the image of the 'lamp'[21] and love by the image of the 'meteor'.[22]

Besides these, there are images that symbolise others concepts. Thus, innocence is symbolised by the image of the 'dove'[23], eternity by that of the 'snake coiling itself in a circle'[24], monarchical tyranny by that of the 'columns'[25], and its fall by that of the "shattered dome".[26] The strength that lies in virtue is symbolised by the image of the 'tower' whose marble walls 'the leagued storms withstand'[27] time by the image of 'stream'[28], the Spirit of good by that of 'the Morning Star'[29]; and the spirit of evil by that of the 'blood-red Comet'.[30]

Images of the same kind are found scattered throughout the poem. Besides, there are whole passages that are closely packed with symbols. Let us take one for instance:

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[1] See "*The Revolt of Islam*", I, xxxviii, 468.
[2] *Ibid.*, II, xxxi, 940-41.
[3] *Ibid.*, VII, xxviii, 3078-81 & VII, xxxi 3100-3103.
[4] *Ibid.*, VII, xxxi, 3104-5.
[5] *Ibid.*, VIII, xx, 3372-74.
[6] *Ibid.*, VII, xx, 3372.
[7] *Ibid.*, II, XX, 838-42.
[8] *Ibid.*, II, xxxi, 940-941.
[9] *Ibid.*, I, xxxviii, 468.
[10] *Ibid.*, XII, xxxv. 4756-59.
[11] *Ibid.*, II, xxv., 889.
[12] *Ibid.*, III, i, 1112-13.
[13] *Ibid.*, III, XXII, 1302.
[14] *Ibid.*, III, xxii, 1305.
[15] *Ibid.*, III, xxii, 1305.
[16] *Ibid.*, III, i, 1116.
[17] *Ibid.*, I, XL. 481.
[18] *Ibid.*, III, xxvii, 1342.
[19] *Ibid.*, II xx, 845.
[20] *Ibid.*, X, xxxiii, 4081.
[21] *Ibid.*, IV, VII, 1473 and IV, xvi, 1555.
[22] *Ibid.*, VI, xxxii-xxxiv.
[23] *Ibid.*, IV, xix, 1584.
[24] *Ibid.*, IV, iv., 1446-46.
[25] *Ibid.*, III, xii, 1207-15.
[26] *Ibid.*, II, xii, 768 & II, XLIII, 1053.
[27] *Ibid.*, II, XIV; 792.
[28] *Ibid.*, II' XII, 770.
[29] *Ibid.*, I, XXVI, 356.
[30] *Ibid.*, I, xxvi. 356.

> We know not where we go; or what sweet dream
> May pilot us through caverns strange and fair
> Of far and pathless passion, while the stream
> Of life, our bark doth on its whirlpools bear,
> Spreading swift wings as sails to the dim air;
> Nor should we seek to know, so the devotion
> Of love and gentle thoughts be heard still there
> Louder and louder from the utmost Ocean
> Of universal life, attuning its commotion.
>
> —*The Revolt of Islam, VI, xxix*, 2587-95.

The symbolic meaning of most of the images in this passage has been made explicit by the poet himself. The images that need interpretation are those of 'whirlpools' and of the bark 'spreading swift wings as sails to the dim air'. The 'whirlpools' represent the forces that disturb the tranquil course of life, whereas the 'bark' is the symbol of the soul of man, which, according to Plato, ever seeks to fly up to its original home in the heavens. The spreading of the 'swift wings as sails to the dim air' is indicative of this effort of the soul to leave the body and move upwards.

There are other passages that are similarly packed with symbolic images. The poem, as a whole, abounds with these; and although it ostensibly aims at being a descriptive poem, it does not fail to give the essence of Shelley's philosophy of love and liberty, though in a somewhat diluted form.

The writing of 'Prometheus Unbound' marks another stage in the development of Shelley's poetic art, particularly as regards the use of imagery as an instrument of poetic expression. In this poetic drama Shelley develops, in the words of Mrs. Shelley, 'his abstruse and imaginative theories with regard to the Creation"[1], and his 'philosophical views of Mind and Nature".[2] To those who regard this poem as a mere 'poetical cloudland', Mrs. Shelley's words may give food for thought. She observed that the poem was throughout scattered with "mystic meanings" to discern which required a mind as 'subtle and penetrating' as Shelley's own.[3] Most of these mystic meanings would be found to be contained in the images of the poem.

The 'Premetheus Unbound' of Shelley, unlike Aeschylus' play on which it is based, is primarily a drama of psychic action. The characters may be regarded as representing the human mind and its faculties and the processes of thinking and feeling. Jupiter's fall synohronises with the expulsion of hatred from Prometheus' mind. Jupiter may thus be taken to represent the thought of evil existing in the mind of man. Jupiter exists only as long as evil thoughts exist in Prometheus' mind; with the disappearance of these thoughts, Jupiter's existence comes to an end. Demogorgon, who calls himself "Eternity", represents the principle of Necessity, the great law that man is to suffer so long as evil thoughts exist in his mind. Prometheus represents the mind of man; his deliverence symbolises the deliverance of mankind by casting away hatred and other evils from the mind and cherishing love for all. Asia symbolises this love. Her union with Prometheus represents the entry of love in the human mind. Panthea and Ione are merely different aspects of love, the first representing sympathetic love and the second love in beauty. Thetis is the symbol of Time, and her union with Jupiter symbolises the reign of evil limited to a definite period of time. The furies that Jupiter sends to torment Prometheus are nothing but Prometheus' own evil passions and desires which make him their prey. Such appears to be the symbolic significance of these, mythical characters.

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[1] Mrs. Shelley's Note on "*Prometheus Unbound*" (Shelley's "*Poetical Works*", Ed., by Thomas Hutchinson, p. 272).

[2] *Ibid.*, 277.

[3] Mrs. Shelley's Note on "Prom. Unbound". (Shelley's Poetical works, ed., by Thomas Hutchinson, p. 272.).

There are many images that have already been used symbolically in 'Alastor' and 'The Revolt of Islam'. Such are the images of the 'river', the 'sea', the 'ocean', the 'waves', the 'cave' and the 'boat' etc. Their symbolic significance has already been explained. Besides these, there are many others that are pregnant with symbolic significances.

One of the symbols very frequently used by Shelley in this poem, as in others, is that of the 'dew'. It conveys varied significances. It symbolises the healing and refreshing influence of love, of noble thoughts, of the knowledge of reality and the like. Thus, the 'cloud of dew', interpenetrating the 'interwoven bowers' through which Asia and Panthea thread their way[1], may be the symbol of divine love, or of divine knowledge or of some such heavenly influence as illumines the darkness of this earthly existence. This healing influence may be that of noble thoughts as well. See, for instance, the following lines:

> Within the circuit of this pendant orb
> There lies an antique region, on which fell
> The dews of thought in the world's golden dawn
> Earliest and most benign,
>
> —"*Prologue to Hellas*", *LL.* 31-34.

This image is symbolic also of such things as the divine love[2], the blessings of a peaceful sleep[3], the fascination of music[4], the joys of a blooming health[5] and the aesthetic pleasures proceeding from the pursuit of poetry and other arts.[6]

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1. "P. U.", II, i, 1-13.
2. See "*The Cenci*", IV, i, 123-124 ("*If nursed by Thy selectest dew of love*"),
3. *Ibid.*, IV, i, 178 ("If sleep, that healing dew of heaven").
4. See "Ginevra", L. 115 ("..........and the dew of music more divine").
5. See "*Queen Mab*", VI, 51-53 ("Yet confide, / Until pure healthdrops, from the cup of joy/Fall like a dew of balm upon the world.").
6. "*Peter Bell the Third*", V. iv., "He spoke of poetry, and how
'Divine it was—a light—a love—
A spirit which like wing doth blow
As it lsteth, to and fro;
A dew rained down from God above;"

The star that "scatters drops of golden light' and momentarily illumines the gloom of the 'interwoven bowers' mentioned above, is another symbol of divine love and of divine wisdom which illumines the darkness of life.[1] The star-symbol has already been used by Shelley in 'The Revolt of Islam' to signify the ideas of Justice, Truth and Joy.[2] The 'star' is also the symbol of permanence. It is in this sense that the image is used in "Epipsychidion", in which Emily, who veils 'all that is insupportable" in her 'of light, and love, and immortality'[3], is called a 'Star above the Storm'.[4] The 'star' is also the symbol of the immortality of the Soul, as in 'Adonais':

> I am borne darkly, fearfully, afar;
> Whilst, burning through the inmost veil of Heaven,
> The soul of Adonais, like a star
> Beacons from the abode where the Eternal are.
>
> —*LV*, 492-95.

The 'fire' throwing its flames up towards heaven, is the symbol of the soul of man seeking to fly up to its original home. In 'Prometheus Unbound', Jupiter tells the assembled Deities :

> All else had been subdued to me; alone
> The soul of man, like unextinguished fire,
> Yet burns towards heaven with fierce reproach
> ... ...
> Hurling up insurrection, which might make
> Our antique empire insecure, though built
> On eldest faith, and hell's coeval, fear;
>
> —*III*, *i*, 4-10.

The concept of the soul seeking over to fly up leaving the body on the earth has been derived by Shelley from the philosophy of the Platonists and the Neo-Platonists. Jupiter's reign, which symbolises the reign of evil in this world, is destined to end as soon as the soul of man regains its prestine purity.

Other symbols of frequent use are those of the 'veil' and the 'shadow', the 'tower' and the 'temple' and the 'cloud' and the 'serpent'. The 'veil', in Neo-Platonic philosophy, is the symbol of the earthly life which hides the life divine. Shelley uses this symbol in this drama, as also elsewhere, with varying implications. Thus, in 'Adonais', he calls death 'a low mist which cannot blot/ The brightness it may veil"[5], and in "Prometheus Unbound', the Earh says to Asia: "Death is the veil which those who live call life/ They sleep, and it is lifted"[6], and further, in the same poem, Prometheus tells Asia:

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1. "P. U"., II, ii, 14-23,
2. The R. of I. VII, x, 3289-98
3. Epif. LL. 23-24.
4. *Ibid.* L. 28.
5. "*Adonais*", LL. 391-92.
6. "P. U"., III, iii, 113-114.

The painted veil, by those who were, called life,
Which mimicked, as with colours idly spread,
All men believed or hoped, is torn aside;

—'*P.U.*'., *III, iv*, 190-192.

Both earthly life and death are thus the 'veil' that covers the immortal soul. 'Shadow', as distinguished from substance, is the symbol of this world which is regarded by Shelley as unreal; it is also the symbol of the wordly life which is merely the shadow of the life divine. It is in this sense that Shelley uses the image in the lines: 'Asia, thou light of life/ Shadow of beauty unbeheld'.

Another commonly used symbol is that of the 'tower'. Standing on a tower, a man commands an extensive view of the world below. The 'tower' thus symbolises the extensive reach of the mind. It is in this sense that Shelley uses the image in the Chorus of the Spirits in 'Prometheus Unbound':

(we come) From those Skiey towers
Where Thought's crowned powers
Sit watching your dance, ye happy Hours !

—*IV*, 101-103.

This image is used in the same sense in 'The Revolt of Islam'[1] (II, xx, 845-46) and in 'Prince Athanese'[2] (Part I, 31-34) as well.

The 'temple' is, in the same way, the symbol of the sensuous powers of man. Thus, the image in the lines:

From the temples high
Of man's ear and eye
Roofed over Sculpture and Poesy;

—'*P.U.*'., *IV*, 111-113.

is expressive of the powers of man's senses which are instrumental in the creation of sculpture, painting, poetry and other arts.

It is interesting to note in this connection the symbolic implication of another image. The 'mystic shell', which 'Proteus old/ Made Asia's nuptial boon, breathing within it/ A voice to be accomplished'[3], may very aptly symbolise the poetic art of whose potential powers Shelley had a very high notion. Poetry, with its inherent powers of music, was, in Shelley's view, destined to influence the world. That Shelley had such an ambition is made evident from his invocation to the West Wind, asking her to drive his "dead thoughts over the universe/ Like withered leaves to quicken a new birth'[1].

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[1] Cp. "Yet not alone from wisdom's tower,
A minister of truth, these plumes young Laon bore"
"The R. of I, II, xx, 845-46.

[2] Cp. 'His soul had wedded Wisdom, and her dower
Is love and justice, clothed in which he sate
Apart from men, as in a lonely tower
Pitying the tumult of their dark estate".
—"Prince Athanase, "Pt. I, LL. 31-34.

[3] "P.U"., III, iii, 65-67.

An investigation of the deep meanings lying hidden in the images of this poetic drama thus enables us to understand the nature of Shelley's philosophical views on man and on man's life and his ultimate destiny. By showing Promotheus' liberation through an act of self-purification, Shelley presents to mankind a method of his self-deliverance. So long as man's mind is not free from evil thoughts, his life is one of perpetual torment. His passions and desires are the furies that plague him, and there is no freedom from these, till the mind has been purged of them by love and noble thoughts. Man's mind is a 'cave' and his life a dark 'bower'; these can be illumined by divine love and by pure thoughts alone.

Sorrow, suffering, happiness and joy are not, in Shelley's view, inherent in the nature of things; these are the creations of man's own mind. The way to happiness is to seek peace within one's own mind, and, like Prometheus, to retire to that cave which is all overgrown with trailing odorous plants[2] and illumined by the light of the fountain leaping in its midst[3] and by the light of the mountain's frozen tears hanging like 'snow, or silver, or long diamond spires'[4], and there to sit entangling 'buds and flowers and beams'[5] and listening to the 'echoes of the human-world, which tell/ of the low voice of love, almost unheard, /And dove-eyed pity's murmured pain, and music,/ Itself the echo of the heart'[6], and enjoying the sight of 'lovely apparitions' which are the 'progency immortal/ Of painting, Sculpture, and rapt Poetry"[7]. This typical cave is symbolic of that ideal state of the mind in which man enjoys perfect peace within himself and feels elevated in the contemplation of noble thoughts and images of all those lovely objects that fill the heart with delight.

The next major poem of Shelley, written after his 'Prometheus Unbound', is 'The Sensitive Plant'. Apparently giving a description of flower-plants and weeds, it is in reality an allegory; for the story of the sensitive plant may as well be the story of a sensitive mind. The lady of the garden who tends this plant is the symbol of true love. As the sensitive plant withers and dies after the death of this lady, so does a man of sensitive mind too when he is deprived of love. The poem, as suggested by Carlos Baker, may be taken to tell us of 'the fate of gentle poetic natures in a loveless world.........; and the survival powers of tough, insensitive minds, which are able both to exist and to establish precedence over more finely organized intellects because they require nothing more than the material world provides'.[8] That the poem has an underlying theme is borne out by the stanzas that form the conclusion of the poem.

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1. "*Ode to the West Wind*", 63-64.
2. "P.U"., III, iii, 10-11.
3. *Ibid.*, III, iii' 13-14.
4. *Ibid.*, III, iii, 15-17.
5. *Ibid.*, III, iii, 30.
6. *Ibid.*, III, iii, 44-47.
7. *Ibid.*, III, iii, 49-55.
8. Carlos Baker : "Shelley' Major Poetry : The Fabric of a Vision", p. 195.

The garden full of different kinds of flower-plants and weeds is the symbol of the world full of a multitudinous variety of living things all subject to their own passions. The 'narcissi', for example, 'who gaze on their eyes in the stream's recess,/ Till they die of their own dear loveliness'[1], represent self-love and self-admiration; as the 'lily', 'whom youth makes so fair and passion so pale'[2], represents the loveliness and passion of youth. The 'Hyacinth', which 'flung from its bells a sweet peal anew/ Of music so delicate, soft, and intense,/ It was felt like an odour within the sense'[3], may be the symbol of loveliness, and self-pity; as the rose, looking 'like a nymph to the bath addressed,/ Which unveiled the depth of her glowing breast'[4], is the symbol of physical beauty. The 'jessamine faint' and the 'sweet tuberose'[5] are the symbols of sensuous pleasures, while the water-lilies and the 'starry river-buds' symbolise the pleasures arising from the contemplation of physical beauty.[6] The 'sinuous paths of lawn and of moss' running across this garden symbolise the earthly life of man passed in the midst of all sorts of joys and pleasures. The sensitive plant, in the midst of these beautiful flowers, stands devoid of beauty, radiance and odour, thirsting for love and beauty which alone can sustain its life. It is thus the symbol of the sensitive mind susceptible to the influence of love and the charms of beauty.

The second part of the poem describes the work of the lady in the garden. She gives life and joy to the flowers by her ministering care. Symbolically, these flowers represent the variety and the multiplicity of life, and the lady the power of love in reconciling discordant elements and in giving joy to all. The 'killing insects and gnawing worms,/ And things of obscene and unlovely forms'[7] that this lady removes symbolise the gnawing cares that fly away in the presence of love in the heart. Similarly, the insects that do ill although their intent is innocent represent innocent desires that often trouble the mind. On the other hand, 'the bee and the beamlike ephemeris/ Whose path is the lightning's and soft moths that kiss / The sweet lips of the flowers, and harm not'[8]—all these symbolise thoughts, fancies, dreams and tender emotions that make life pleasurable.

The second part ends with the death of this lady. Her death represents the disappearance of love from life.

The third part describes the effect of this disappearance of love on life. In the first place, life, symbolised by the various flowers of the garden, loses its loveliness; it then gradually becomes infested with evils of all sorts (symbolised by all sorts of 'loathliest weeds', 'thistles, and nettles, and darnels rank, / And the dock, and henbane, and hemlock dark[9]').

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[1] "*The Sensitive Plant*" Part I, 19-20.
[2] *Ibid.*, I, 22.
[3] *Ibid.*, I, 26-28.
[4] *Ibid.*, I, 29-30.
[5] *Ibid.*, I, 37.
[6] *Ibid.*, 1. 45-46.
[7] *Ibid.*, Part II, LL. 41-42.
[8] *Ibid.*, Part II, ll 49-52
[9] *Ibid.*, III, 50-55.

Love is regarded by Shelley to be a generative force. With its disappearance, the fountain-source of life is dammed up with many an evil, as the source of a "rivulet" (symbol of life) is blocked by the knotted roots of 'huge flags', and 'spawn, weeds, and filth'.[1]

Love is then replaced by lust. This lust is symbolised by 'unctuous meteors'[2] that 'from spray to spray /Crept and flitted in broad noonday/ Unseen'.[3] Spray is the symbol of physical beauty, and the flitting of the meteors from one spray to another represents the insatiable appetite of lustful persons for sensuous pleasures. Lust ruins life as the 'unctuous meteors' burn by venomous blight, every branch on which they alight.[4]

We thus see how, through the images of this simple descriptive poem, Shelley expresses his view of love and of its place in life. The poem which appears to be a mere description of flowers is, in reality , full of profound significance. Shelley shows himself a complete master of his art. Images come as if altogether unsought for, fit naturally in the pattern of the poem and serve both the descriptive and the symbolic purpose of Shelley.

Mrs. Shelley's observation on 'The Witch of Atlas' that Shelley wrote this poem 'to shelter himself rather in the airiest flights of fancy.........'[5] seems rather misleading. The poem is apparently a phantasmagoria of unusual events and scenes in which beasts and spirits of all sorts take a part. But if it be admitted that there is a consistency in Shelley's use of imagery, a definite meaning can certainly be given to the poem.

Carlos Baker has traced the witch's ancestry to the Massylian priestess in Vergils' 'Aeneid'[6], to the Hermes of Homer's 'Hymn to Mercury'[7] and to Belphoebe and Amoret in Spenser's 'Faerie Queene'[8]. Carl Grabo finds in her a likeness to 'Asia in her youth before her union with Prometheus, the mind of man, in a regenerate world'[9]. He further describes her as 'the spirit of love and beauty in nature'[10], the 'spirit of animation'[11] and 'the creative spirit of intellectual Beauty'[12].

The images of this poem, like those of 'The Sensitive Plant', would be found to have a dual significance—literal and symbolic. The use of such images has almost become natural to Shelley.

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[1] "*The Sensitive Plant*" III, 66-69.
[2] *Ibid.*, III, 74.
[3] *Ibid.*, III, 74-76.
[4] *Ibid.*, III, 76-77.
[5] Mrs. Shelley's Note on "*The Witch of Atlas*", (Hutchinson ed. of Shelley's "*Poetica Works*", p. 389).
[6] Carlos Baker ; "Shelley's Major Poetry; The Fabric of a Vision", p. 206.
[7] *Ibid.*, 207.
[8] *Ibid.*, 209.
[9] Carl Grabo : "The Meaning of "*The Witch of Atlas*", p. 4.
[10] *Ibid.*, p. 4.
[11] *Ibid.*, p. 4.
[12] *Ibid.*, p. 4.

The poem, after a few stanzas addressed to Mary, begins with the use of such images as the 'cavern' and the 'secret fountain'[1]—images already so often used by Shelley. The 'cavern' may be taken to be the symbol of the mind of man, and the 'secret fountain' that of the divine inspiration. The birth of the Witch in a cave in the form of a 'dewy splendour'[2] thus symbolises the awakening of love in a divinely inspired mind or the perception of Intellectual Beauty by it.

The various beasts, like the cameleopard, the elephant, the lioness, the pard and the doe symbolise the variety of life; as the various spirits of nature, like 'old silenus', Pan, Cicadae, Dryope, Fauns, Centaurs and Satyrs, represent the phenomenal world of nature. The coming of all these beasts and spirits under the influence of the Witch suggests the all-subduing power of love and beauty.

The 'subtle veil', which the Witch weaves to serve as a 'shadow for the splendour of her love'[3], is symbolic of the corporeal form which divine Love and Beauty assume to make themselves manifest to mortal eyes. Shelley believes that true Love and Beauty have a splendour which it is beyond the power of human eyes to endure.[4]

The Witch's dwelling is said to be stored with magic treasures : 'sounds of air' which have the power of compelling all spirits,[5] 'Visions swift, and sweet, and quaint'[6], odours of 'ever-blooming Eden-trees' which have the power of stirring 'sweet thoughts or sad, in destined minds'[7], and liquors 'clear and sweet, whose healthful might/ Could medicine the sick soul to happy sleep'.[8] All these objects—sounds, visions, odours and tasteful liquors—stand for sensuous pleasures of various kinds that have the power of beguiling the mind.

The 'scrolls of strange device', whose knowledge enabled men to quench their 'Earth-consuming rage / Of gold and blood'[9], represent the all-subduing power of human intellect. The 'wondrous works' carved out of 'ragged blocks of savage stone' and 'Carved lamps and chalices, and vials which shone / In their own golden beams'[10] are indicative of the artistic faculty of the human mind.

The Ocean-nymphs, Hamadryades, Oreads and Naiads that offer to do her bidding, 'through the seas, / Under the earth, and in the hollow rocks,/ And far beneath the matted roots of trees, / And in the gnarled heart of stubborn oaks'[11], symbolise the transitoriness of all material objects which they in-

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1. "*The Witch of Atlas*", 1, I, 56.
2. *Ibid.*, IV, L. 78.
3. *Ibid.*, XIII, 151-152.
4. See, for this view of Shelley, "*The Sensitive Plant*", III, 134-7.
5. "The Witch of Atlas", XIV, 155.
6. *Ibid.*, XV, 161.
7. *Ibid.*, XVI, 169-176.
8. *Ibid.*, XVII, 171-78.
9. *Ibid.*, XVIII, 190-191.
10. *Ibid.*, XX., 201-206.
11. *Ibid.*, XXII, 219-22.

habit. Beauty and Love are immortal, and so the Witch, who is an embodiment of these, tells these spirits, as she rejects their offer: "I cannot die as ye must"[1].

The Witch is said to sit all day 'Spelling out scrolls of dread antiquity/ Under the cavern's fountain-lighted roof' or "broidering the pictured poesy/ Of some high tale' adding to it always some new grace[2]. Such is the activity of the mind when inspired by Love or Beauty. It contemplates objects of beauty and produces poetry as well as other great works of art.

While the Witch sat so absorbed in her work of contemplation or creation, 'on her hearth lay blazing many a piece/ Of sandal wood, rare gums, and cinnamon'; but all these she did not behold 'for in her hand /She held a woof that dimmed the burning brand'[3]. What Shelley seems to imply is that when the mind contemplates objects of beauty or applies itself to some creative activity, it becomes oblivious of all other objects of sensuous perception. The 'woof', which the Witch holds in her hands, signifies the knowledge of truth which renders all sensuous experience as an object of not much worth.

The strain of symbolism runs throughout the poem. The light that glows on the 'emerald crags' of her cave, and the reflections of the constallations that she seas reeling and dancing 'through the green splendour of the water-deep'[4], are reminiscent of the shadows of reality falling on the cave that Plato speaks of in his "Republic'[5].

The Witch's journey in a boat up the stream through forests, labyrinthine vales and vast mountains has the symbolic significance of a similar journey in 'Alastor'. The gleams of light falling on the stream through 'a narrow rift of 'sky'[6], are the occasional glimpses of truth and reality that a man gets in his lifetime; the pools 'in which abode / The calm and darkness of the deep content' and over which the boat of the Witch lingers awhile[7], symbolise the tranquil state of the mind; while the 'white and dancing waters, all besprent / With sand and polished pebbles'[8] of the shallow rapids of the stream represent false hopes and pleasures on which life cannot subsist for long. The Witch, in her journey, reaches the 'Austral lake' where she builds for herself 'a windless haven'[9]. The haven in the Austral lake connotes peace that the mind gains in retirement. The winds and hail that scourge the outer parts of the lake are the violent passions that disturb the peace of mind.

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1. *Ibid.*, XXIV, L. 238.
2. *Ibid.*, XXVI.
3. *Ibid.*, XXVII. ll263-264.
4. *Ibid.*, XXVIII. l. 268.
5. "*The Republic*", Bk. VII, Sec. 515 ("The Dialogues of Plato" trans. into English by Jowett Vol., 2 pp. 773- 4').
6. "*The Witch of Atlas*", XXXIX.
7. *Ibid.*, XLI, 371-372.
8. *Ibid.*, XLI, 374-375.
9. *Ibid.*, XLVIII.

Such seem to be the implications of the images of this poem. Shelley wrote this poem in a light mood, but it is far from being a mere phantasy of the mind. From the time of the writing of 'Queen Mab' and 'Alastor' till the writing of this poem ,Shelley shows an unmistakable consistency in the use of his images. Interpreting the images of this poem in the way indicated above, we are able to discover a manifest intent behind the apparent moaninglessness of the poem.

In 'Adonais' Shelley enters the realm of pure metaphysics and expresses his well-considered views on the subjects of life, death and soul.

Life, in Shelley's view, ever since 'the great morning of the world when first / God dawned on Chaos', has been one continuous stream, subject to 'change and motion' but ever-flowing[1]. This stream of life has also been a quickening force, running through all objects—'Through wood and stream and field and Ocean'[2].

Such is the nature of earthly life as conceived by Shelley. It is likened to a vast stream whose waters represent the multitudinous life with which the universe teems. This multitudinous life is subject to a process of perpetual change, ever passing through an unending cycle of decay, death and resurrection. In the midst of this continuous change there is only one thing that is unchangeable and that is the soul. The pure soul of the individual, freed from its corporeal chain, flows back to its primal source, and merges in the Eternal, never to return to the earth to suffer the pangs of birth and death. The body, which belongs to the earth, is reduced to dust

> but the pure spirit shall flow
> Back to the burning fountain whence it came,
> A portion of the Eternal, which must glow
> Through time and change, unquenchably the same,
> —*Adonais,xxxviii,* ll. 338-341.

The 'burning fountain' is the symbol of the Divine Soul from which individual souls emerge like so many sparks and to which they return.

Earthly life and death are merely two phases of the Life Eternal. Death is a mere shadow[3], a curtain[4] and a low mist[5], and it 'cannot blot the brightness it may veil'[6]. What, in Shelley's view, is really worth striving for is becoming one with Eternal Being. The way to this goal lies through death; and hence death is to be welcomed by the aspirant after divine life. Hence, Shelley calls on the mourners of Adonais:

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1. "*Adonais*" XIX, LL. 166-67.
2. *Ibid.*, XIX, L. 163.
3. "*Adonais*", VIII 66.
4. *Ibib.*, VIII, 72.
5. *Ibid.*, XLIV 391.
6. *Ibid.* XLIV, 391, 392.

> Die,
> If thou wouldst be with that which thou dost seek !
> Follow where all is fled !
>
> —'*Adonais*', *LII*, 464-66.

It may be noticed that, in expressing his views on these metaphysical subjects, Shelley makes use of the images, such as the 'shadow', the 'curtain', the 'mist', the 'star', the 'stream', the 'fountain and the 'fire' etc., to which he had already given symbolic values. It is difficult to say whether he could have rendered his conceptions so clearly and so poetically without the use of such symbolic images.

In this survey of Shelley's major poems from the earliest of his productions to almost the last of his poetical achievements, we have seen to what great effects he used his symbolic imagery as an instrument of poetic expression. It has been seen that many of his recondite conceptions and subtle ideas could not have been expressed so adequately and so poetically by any other means. That he succeeded in making his abstruse philosophical ideas extremely poetical is, to a very large extent, owing to his symbolic imagery in which they have been incarnated.

There is no doubt that Shelley's symbolism has occasioned a good deal of misunderstanding about the nature and meaning of his poetry. It has been the principal cause of the too frequently attributed charge of vagueness and obscurity against his poetry. But a systematic study of the symbolism of his poetry makes it sufficiently clear that his thought was always clear and precise and that he took pains to express it as adequately and as poetically as he could by exploiting all the resources of the language.

TYPES OF RURAL SETTLEMENT IN EAST RAJASTHAN

NITYANAND, M. A.

Department of Geography, D. S. College, Aligarh.

Since 1928, when the first report of the commission on 'Types of Rural Settlement' was published by the International Geographical Union, much interest has been aroused in the systematic study of rural settlements as one of the fundamental tasks of Human Geography. The delimitation of settlement patterns and the explanation of their origin and structure in relation to its physical and cultural setting is the chief task of the student of rural settlements. While 'attempting to understand forms of settlement, the nature of climate, relief, soils and water supply becomes of vital importance when studied in relation to the rural economy and the historical development'.[1]

Offering a great variety of settlement patterns and house types, East Rajasthan is an unusually fertile field for the study of rural settlements. In this area, the wide regional differences have been accentuated through the centuries by a complicated and peculiar history of human occupance. In the present attempt, consideration will be given mainly to the study of types of rural agglomorations. While studying rural settlements as geographical entities, the main emphasis is upon such geographical facts as are the synthesis, the crystallization of the civilization of the region—the complex of the natural and man-made phenomena of the land.[2]

There are two extreme forms of grouping of rural settlements: the isolated farmstead, placed in the midst of its own fields, and the nucleated village, in which all the dwellings are clustered at one site. In the first type which is generally known as scattered, dispersed, disseminated or diffused, the houses are scattered in their respective farms, without any well-defined line of traffic in between them. In the latter, the houses are closely knit together separated by passages meant for traffic circulation. Such a grouping is known as compact, clustered, nucleated or agglomerated. Between these two extreme types of settlement forms, there are numerous gradations which depend upon the interplay of social and physical conditions. In East Rajasthan these two extreme forms, with many intermediate stages are so complex and complicated that it is very difficult to classify them on the basis of any rigid criterion. Jean Brunhes[3] points out four types of settlement forms:

1. 'extreme dispersal with no real concentration at the centre of the Commune'.'
2. 'Fundamental seed-bed, formed by the association of small villages and scattered farms'.

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[1] 'Types of Settlement in Spain'—H. Fairhurst—P. 283—296 (S. G. M.—1935).
[2] 'The Geographical Study of Settlements'—H. W. Ahlmann—G. R. 1929, P. 93.
[3] J. Brunhes—Human Geography—1952—P. 72, 73.

3. 'nebular villages, the houses separated from each other, from little diffused nuclei'.
4. 'the compact village'.

Aurousseau[4] classifies rural settlements into two broad types: 1. agglomerated 2. disseminated. Under the first type, he recognizes the following four sub-types: *namely*—1. small town 2. village 3. true village communities 4. hamlets; and under the second type, points out three other sub-types, *namely*- 1. complete dissemination in regions of uniform soil, providing abundant ground water 2. Linear dissemination and 3. incomplete dissemination in which true villages are few and far between and the usual so called villages are small loose nuclei.

Dr. E. Ahmad[5] distinguishes four main types of rural settlements within the Uttar Pradesh : 1. Compact settlement, 2. 'Cluster - and - hamlet' settlements, 3. Fragmented or hamletted settlements, and 4. dispersed settlements. 'In his studies of the 'Evolution of settlements in the Middle Ganga Valley', Dr. R. L. Singh[6] recognizes more or less the same fourfold division of settlement types: 1. Compact settlements, 2. Semi-compact, 3. Semi-sprinkled and 4. 4. Sprinkled. Dr. S. M. Ali[7] classifies the rural settlements of the Ghaggar Plain into three main types: 1. The clustered village, 2. The semi-clustered village, 3. The dispersed village.

Even a superficial glance at topographic maps will indicate that there are wide variations from the two main patterns—the nucleated and the dispersed. In between the compact settlements on the one hand and the isolated farmstead on the other, there is a great variety of intermediate types. Rural settlements cannot be fitted into a series of pigeon holes into which every settlement can distinctly be placed, but a general indication of the way in which settlement forms may be related or differentiated from each other, for the geographical study of settlements in East Raj. are as follows—1. Compact settlements' 2. 'Cluster and hamlet' or semi-compact settlements, 3. 'Cluster and farmstead' settlements, 4. Fragmented or hamletted settlements, 5. Dispersed settlements.

The 'cluster and hamlet' and 'cluster and farmstead' represent intermediate strages between the compact and hamletted or dispersed settlements, and they represent 'incomplete dissemination' as recognized by Aurosseau. These hamlets or farmsteads represent generally the outgrowth of the main village population which has also been supplemented by addition of newer immigrants to the already established farmsteads or hamlets.

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4. M. Aurousseau—Arrangement of Rural Population, G. R. 1920, P. 224-37.
5. Dr. E. Ahmad—Rural Settlement Types in the Uttar Pradesh, A. A. A.G. Sept. 1952, P. 223.
6. Dr. R.L. Singh—Evolution of Settlements in the Middle Ganga Velley—The National Geographical Journal of India, Vol. I, Part 2, Dec. 1955, P. 98.
7. Dr. S. M. Ali—Population and Settlement in the Ghaggar Plain—July—Sept. 1942, I. G. J., P. 172—173.

Compact Settlements—This type of settlement is characterized by one common feature, *i. e.*, the concentration of almost all the human habitations of a village at a central site. The compactness of the village abadi varies from region to region on the basis of physical conditions. In the sandy tracts, the villages are loosely compact, *i.e.*, the dwellings are not much congested in a small space as there is no dearth of space for house construction. Such villages conform to the pattern of the 'nebular villages' of Brunhes' classification. In the black soil region of Gangapur and in the muddy plains of Bharatpur, villages are tightly compact, *i.e.*, all the dwellings are huddled together in a small space and two-storeyed houses are not uncommon. The compact settlements cover by far the largest area of East Rajasthan occupying nearly the whole of the semi-arid region, the Tonk Peneplane and the Bharatpur plain. The Shekhawati-semi-desert, in which the large and loosely agglomerated village predominates, is a Semi-Arid zone receiving a rainfall of 13″-16″. Water table is generally more than 120′ deep and 'the population clusters around water points in this Dry Zone'[8] and compact villages are found at those places where the topographical conditions are suitable for well construction.

In the Tonk Peneplane, the rocky substratum is covered with a thin veneer of black clayey soil and suitable conditions exist for construction of tanks which attract compact settlements. Inspite of a rainfall of 20″-30″ the region suffers from lack of water. As the oily water and rocky substratum renders well irrigation useless and difficult, tanks have worked as magnates to agglomerate the human habitations. In the 'Mal'[9] region the villages are generally situated on raised mounds. The Bharatpur plain is also characterized by compact settlements because here underground water is brackish or salt and agriculture depends primarily on bund irrigation. In this subregion, large tracts are liable to inundation and a few raised mounds offer the only sites for 'dry point' villages.

'Cluster and Hamlet' Settlements—'Cluster and Hamlet' type can be distinguished from the compact settlements on the basis of the existence of a few separate hamlets, usually one or two, in the village area apart from the main village. As this type represents a transition stage, it is generally found between the zones of compact and fragmented settlements. It is characteristic of some parts in the Dholpur and Alwar plains, central plain and the Torawati Upland. The same type is also common at a few places in the Karauli Tableland.

'Cluster and Farmstead'—The cluster and farmstead type differs from the 'cluster-hamlet' settlement by reason of the existence of a number of isolated farmsteads in the mauza apart from the compact village. Brunhes has defined such villages as 'the fundamental seed bed, formed by the association of small villages and scattered farms'.[10] Such a settlement type is characteristic of those places where the tendencies of dispersal have been in action for the

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8. The Burmese Vellage—Spate, O. H. K., G. R. XXXV—523—43.

'Mal' means a sticky black clayey soil which is found in the Gangapur sub-division and the Rajakhera Tehsil.

10, Brunhes, Op. Cit.—P. 72-73.

last one or two centuries. This type is prevalent in the central plain and also in some tracts of the Torawati upland, where the fertile loamy soil is supplemented by a high water table, rendering a popular use of well irrigation possible. Well developed means of transportation and communication in the sub-urban fringes have lately exhibited the tendency of dispersal resulting in such a mixed type of settlement.

Fragmented or Hamletted Settlements—The fourth type, the Hamletted Settlement, is characterized by one main site and several hamlets standing separate from one another and scattered over the whole village area. The fragmentation of the village population into several hamlets is so marked that the main site may or may not be easily distinguished. The number of hamlets may vary from 4 or 5 to 50 or 60. The Sabi basin—a region of high water table and fertile soil—is well-suited to the growth of such hamletted settlements. The Parbati basin exhibits the same pattern. The ravines along the Chambal and its tributaries are also characterized by the same type of settlement. A considerable portion of the ground on the bank of the Chambal and its tributaries is cut up by ravines which are 50′ to 150′ deep. These ravines have caused appreciable fragmentation of cultivable area resulting in the development of several non-nucleated hamlets.

Dispersed Settlements—In the rugged terrain of Udaipurwati hills and the dissected plateau of Alwar, the dispersed settlements are associated with the scattering of population into tiny hamlets consisting of two or three households of a single family or isolated farmsteads in the midst of cultivated fields. In the interhill valleys, dispersal of human habitations seems to be associated with an intensive type of agriculture which is favoured by a very fertile soil and high watertable.

The present forms of settlement are a result of a complex of factors—physical and cultural. No one single cause can be assigned to the growth of agglomerated or dispersed settlements. In accordance with the prevailing village pattern of agricultural settlement in north-western and western India, East Rajasthan's rural landscape is characterized by clustered settlements, the isolated farm dwelling being characteristic only of certain type locations and regions. This tendency towards agglomeration is most marked in the Semi-Arid zone and in the Tonk Peneplane.

FACTORS WHICH HAVE CONTRIBUTED TO THE GROWTH OF COMPECT SETTLEMENTS

Physical Factors—Wherever broad plains have a relatively uniform soil and relief the compact village is the rule. Demangeon[11] has truly remarked that the compact settlement "will be found, as an ancient feature, chiefly on lands which are fertile from the beginning'. The fertility of soil in the Trans-Yamuna plain has enabled a large number of cultivators to live together in compact sites. The uniformity of relief in Semi-Arid region and the Tonk Peneplane has also fostered the growth of the clustered village. In the words of Vidal de la Blache, 'the clustered village is indigenous in distts. where the arable area is continuous, admitting of uniform and extensive exploitation'.[12]

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[11] Agricultural Systems and Schemes of Distribution of Population in Western Europe, Demangeon—The Geographical Teacher, XIII (1925—26) P. 199—205.

In the regions of deep watertable, wells are infrequent as their construction is difficult and costly. The population concentrates at one central site near the well to have a secure supply of water. The zones of the deepest watertable in East Rajasthan lie along the Chambal river and in the semi-arid region. Both the regions are noted for their compact settlements. Lack of sufficient rainfall in the semi-arid region is an important climatic factor which strongly manifests itself in the development of clustered settlements.

Oily and brackish water in the Tonk Peneplane and the Bharatpur plain is an important hydrological factor which has necessitated the storage of water in the form of tanks and bunds and thus fostering the growth of agglomerated habitations. A hard rocky substratum under a thin cover of black clayey soil is a marked feature of the structure of the Tonk peneplane. The hard impervious rocky strata makes the construction of deep and reliable wells costly and difficult, and consequently favours the construction of tanks. The entire region is characterized by compact villages situated in the vicinity of such tanks.

Small mounds or elevated sites in the tracts liable to inundation offer attractive sites for the growth of tightly compact villages where the population clusters to avoid the floods. In some parts of Bharatpur and Gangapur subdivisions where the soil is sticky and land is liable to inundation, the houses are grouped more tightly on the few elevated sites. Shortage of building space leads to the construction of even double-storeyed houses in such 'dry-point' villages.

Cultural Factors—Communal cultivation and agricultural co-operation have encouraged the growth of agglomerated settlements in the past. According to Dr. R.K. Mukerjee[13] 'an earlier regime of collective ownership and periodic redistribution of holdings, village groves and meadows' was preceded by the intensive farming with a fixed routine of cropping which necessitated a common agricultural routine and collective management of pastures and distribution of water supply.

Demngeon[14] has also expressed that some form of communal cultivation exists at the origin of the compact village. Collective works such as the building of dams, irrigation channels, digging of wells and tanks can only be successful when there is an ample supply of labour which can be easily managed by the residents of a compact village. 'Necessity for co-operation in the regulation and control of water, driving of wells, upkeep of certain public works and preparation of the environment to make it favourable to crops; such things mean consolidation.' Thus it can be observed that the clustered settlements 'are an expression of the same need. That need is to centralise agricultural activity in some one place.[15]

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[12] Principles of Human Geography—Vidal de la Blache, New York, 1926, P. 316.

[13] Dr. R. K. Mukerjee—Man and His Habitations, London, 1941, P. 63-64.

[14] A. Demangeon—op, cit.—P. 199-205.

The fragmentation of holdings is a common feature of the rural landscape of our country. The fragmented pieces of land varying in fertility and size are scattered over the mauza. 'Concentration of living quarters is necessitated by the diversity of parcels to be cultivated, because their only common meeting ground is the village, whither all paths lead.'[16] By living in the clustered village, the peasant is favourably placed as regards distance from his scattered holdings which he has to look after. Dwight Sanderson[17] also observes that whenever common lands, intermingled holdings, and free pasture are characteristic of an agricultural system there the farm village type of settlement results.

The sense of neighbourly interdependence and the solidarity and strength fostered by the village communal agriculture are greatly strengthened when farm families live close together on a compact site. All the castes, which are mostly based on occupations in India, have their proportionate representation in the population of a compact village. Thus such villages continue to provide for 'what everywhere else is the privilege of cities, *namely* division of labour and the satisfaction of needs, even of luxuries'.[18] Because of the great variety of social institutions, the compact units of human establishments provide all the advantages of a community life. Temples, chaupals, weekly markets and social functions have made their own contributions to the centripetal forces for the crowding and concentrating of living quarters at one common site. It seems quite reasonable that people should establish a compact village closely knit together by religious and economic bonds to enjoy the close and warm communal life of a self-sufficient society. Most of the commodities needed are produced either in the home or by local craftsmen. The villagers work and play, sorrow and rejoice together. The result is a closely integrated and interdependent life which is both attractive and warm despite the incredible meagreness of material things. Commenting upon the compact settlements of Eastern and Southern Asia, J. E. Spencer[19] is 'tempted to assert that the historic need for common protecti n and defence by the villager may be the chief causal factor for this tightness of dwelling habit, but this may well be an after-generalization too sweeping in scope. Close-order dwelling may have become habitual among Chinese, Japanese, Indians and other peoples as an integral aspect of their evolving closely knit social system'. Thus the social factors discussed above provide a more permanent basis for the agglomeration of rural population than other factors.

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15. Blache—op. cit.—P. 300.
16. ,,—Ibid.—P. 300.
7. Dwight Sanderson—The Rural Commmnity, Boston, 1932, P. 179.
18. Blache—op. cit.—P. 313.
19. J. E. Spencer—Asia. East by South—1954, P. 136.

It would be vain to neglect the influence of the need for security and defence, as many parts of East Rajasthan have been associated with the movement of armies, recurrent battles, and incrusions of marauders. The area of maximum disturbance has been the Tonk Peneplane, Bayana—Sawai Madhopur, & Agra—Ajmer routes, and the Bharatpur Plains. In the medieval period, various Rajput rajas were frequently at war with the Muslim kings and during 18th century and in the beginning of the 19th century, almost the whole of East Rajasthan was one of the most disturbed and troubled zones of India. The armed bands of Pindaris and Mahrathas from the south and jats from the east and north-east frequently raided and plundered indiscriminately all villagers that lay in their way. The battles and movement of armies meant a constant danger to the peasants in the form of the trampling of crops, looting of property and cattle, and loss of honour and life. Under such chaotic conditions of lawlessness, the villagers had no other alternative than to congregate in compact fortified villages round the fortress of the local chief in order to defend themselves against the tempestuous raids of furious armies of greedy soldiers. The influence of these unsettled conditions has best mainfested itself in the form of compact villages which are invariably associated with fortresses and in most cases with mud or masonry outwalls. Such villages are almost common to every region of East Rajasthan irrespective of the pervalent settlement type. In the unfortified villages of the disturbed zones, the outer-walls of the peripheral houses is generally joined to each other in such a manner as it forms a continuous enclosure round the village and thus works as a fortified wall.

In India, castes are based on occupations and the economy of these occupations influences the pattern of grouping of rural dwellings. Non-cultivating landowners (mostly Rajputs, Jats and Brahmins in East Rajasthan) prefer to live in compact villages and similarly Brahmin pandits and priests, banias and rural artisans (carpenter, blacksmith etc.) can have no scope for their professions in the isolated farmstead.. On the other hand, Gujars live in scattered habitations because they depend mainly upon stock-raising. Malies and Kachhis practise a gardening type of intensive agriculture which needs constant vigilance and care and thus cannot dwell away from their fields and gardens. In the Semi-Arid region where Kharif crops grow without irrigation, the peasants practise extensive farming requiring less labour and vigilance in proportion to the size of land and, therefore, the peasants can manage to live in compact habitations. From what has been said above it is evident that the castes and their associated economies exert a considerable influence upon the types of settlement. The style of village in East Rajasthan varies much with the caste. On the extreme east of the region, in the northern part of Bharatpur district among the meos the average village lies closely packed together. The dwellings of several different families are enclosed in a compound by a high wall with one common entrance. In the central tehsils of the same distt., inhabited chiefly by Jats, Ahirs and Brahmans, the houses are not so closely packed together and most of them have their own separate compounds. In the Gujar villages of Thana Ghazi Tahsil, the isolated huts lie scattered at considerable distances. The impact of Rajput and Jat clans has also been greatly felt on the compact settlements in the different sections of East Rajasthan.

The method of irrigation considerably influences the type of grouping of human habitations and it has been observed that tanks and bunds in East Rajasthan are invariably associated with compact settlements. 'The collective building of dams and irrigation channels for the storage and distribution of rain water and the construction of tanks for artificial irrigation have promoted the evolution of compact villages.'[20] The need to store water against the seasonal distribution of rainfall and its vagaries is conducive to clustered villages in the regions where either underground water is saline and brackish (as in the Bharatpur plain) or well construction is rendered difficult and expensive due to a hard rocky strata underneath (as in the Tonk Peneplane).

FACTORS WHICH HAVE CONTRIBUTED TO THE EVOLUTION OF DISPERSED SETTLEMENTS

Though East Rajasthan is chiefly a zone of village dwellings, there are several tracts which today, are marked by dispersed settlements. The dispersion means that the people must live on the patches of land which they themselves cultivate.

Physical—The relief of land is intimately related with the type of settlement and the degree of dispersal varies in proportion to the ruggedness of the terrain. 'The scattered manner of grouping suits localities where, as a result of the dissection of relief, soil and hydrography, the arable land is itself divided-up.'[21] In East Rajasthan, the hilly areas are generally associated with dispersed habitations, but the rugged terrain is directly effective only in the forestead hills where they support cattle herders living in isolated huts. In other cases, in the interhill valleys where run off from the hills results in a high watertable, the habitations have a tendency to cling to the scattered walls. Further, in lowlying areas along the rivers and in the tarai of hills where watertable is high due to abundant seepage, the construction of wells is cheap and easy so that wells are numerous & the peasants find it more profitable to settle along them. The diffusion of sources of water in the form of numerous wells scattered uniformly in fields has thus obviated the necessity to cluster in a compact central site and has exerted a centrifugal force in the growth of scattered settlement. 'In regions of uniform good soil, providing abundant ground water, every man lives on his farm and dissemination takes place.'[22] Blache[23] has also commented about the inhabitants of such regions: "The water table is so accessible that these communities cover uniformly the entire area of loose mellow soil." Such topographical conditions are found to a greater extent in the Udaipurwati Hill,

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20. Dr. R. K. Mukerjee—Op. Cit. P. 63—64.
21. Blache, op. cit. 316.
22. Marcel Aurousseau—op. cit. P. 223—240.
23. Blache—op. cit. 313.

the Dissected plateau of Alwar, and the Sabi-Basin and to a lesser extent in the Torawati Upland and the Western section of the Central plain.

Another important and curious centrifugal force contributing to the dispersal of habitations is nearness to the forested hills that are infested with protected wild animals which provided fine game for the Rajas and their guests. The constant menace of damage to standing crops required round the clock vigilance by the peasants. Such a supervision and protection of crops has compelled the helpless peasants to live amidst their fields. In the Dissected Plateau of Alwar, it is a potent factor for the scattering of human habitations.

Cultural Factors—Caste factor has affected the arrangement of rural population in more than one way. In addition to other physical and cultural factors, the type of settlement is influenced, to a very great extent, by the caste factor. Caste system is primarily based on the division of labour and each caste has a distinct occupation of its own. The economy of these occupations influences directly or indirectly the grouping of habitations. A few castes such as Kachhis, Malies and Nagas are associated with an intensive use of land which requires close devotion to their fields and crops. As a result of such an intensive and careful method of farming, they prefer to live nearer to their fields rather than in the compact village. In some regions (*e.g.*, in the Dissected Plateau of Alwar) other castes have also responded favourably to such methods of intensive farming resulting in the scattering of settlements. Certain castes such as 'gujars' or others engaged in cattle herding and forestry prefer to live in those tracts which are useful from the point of view of their vocation. Thus the rural habitations of these castes are scattered in the forested hills where pasturage is avaliable.

With the passage of time, the caste system in India became more and more rigid and a sort of 'apartheid' or 'social segregation' was developed and consequently a number of castes came to be regarded as untouchables and were forced to live in low-caste suburbs at a respectable distance from the central site which was generally occupied by caste Hindus. In the words of Dr. Mukerjee,[24] 'Villages thus have their suburbs in India due to the peculiar characteristics of the Indian caste organisation. Side by side with dense compact villages there spring up in the midst of green, unenclosed fields hamlets occupied by the depressed castes, the Chars, Lodhi, Doms *etc.*, who live in relative social isolation and are hired for field operations by well-to-do high-caste farmers". In East Rajasthan low caste includes chamar, Balai, Dhanuk, Daroga, Bhangi etc., which live in separate quarters either on the outskirts of the main village or entirely segregated from it and possessing its own tanks or wells. Where the caste feeling is stronger, large villages or small towns have their attached hamlets of specialized castes. Greater convenience in agricultural operations and scarcity of living space in the congested village site have lead the peasants to establish separate hamlets not far from the parent village. Generally such hamlets bear caste names and many hamlets near Nimrana provide excellent examples of this fact.[25]

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[24] Dr. R. K. Mukerjee—op. cit. p. 105.

The tendency of settling in more or less complete isolation was further strengthened by absentee landlordism. The zagirdars and zamindars did not, as a rule, cultivate themselves, but settled their tenants on their lands and lived upon the rentals they received. As the landlords protected them, they were quite secure in their small isolated hamlets or farmsteads. Thus it was a common practice with landowning and non-cultivating classes to live in large compact village sites surrounded by numerous hamlets inhabited by rent-paying tenants. In some cases, the zagirdars have compelled tenants to live in scattered habitations so that they may not unite to raise their voice against the atrocities of the zagirdars. In the gazetteer of Alwar (1878), Powlett has given an account of the Meos of the Nikach valley and it supports the above statement: "Nikach is in the valley lying between the double range of hills northwest of Ramgarh. The valley has much rich land, the Meos of it were so troublesome that Banni Singh drove the people away from their village under the hills, near which a fort called Bajranggarh was built, and compelled them to live in a number of hamlets scattered about the village lands. Similarly Nagas, in the vicinity of Udaipurwati, have also been compelled to live in isolated farmstead so that land may be cultivated intensively with no fear of opposition to the zagirdars. This factor of land tenure has effectively contributed to the dispersal of rural settlements only in those fertile tracts where the water table is high.

The influence of the need for security and defence can hardly be overemphasized. 'Wherever after long periods of insecurity safety begins to dawn once more, there is a move toward diffusion. Bonds are loosed, as it were. From the ancient fortified village......groups of houses are let loose, like a troop of emancipated school-boys, scattering as fancy dictates'.[26] With the establishment of indirect British rule over the states of East Rajasthan, peaceful conditions have prevailed which have favoured the growth of the fragmented settlements. It has given rise to the development of numerous hamlets outside the main village site. Under similar conditions at Achrol,[27] cultivators have come out of their fortified village and have established themselves near their fields. In many of the small fortified towns of East Rajasthan, the peasants have gradually spread out of the fortifications over the landscape to settle themselves in tiny hamlets and consequently such towns are characterized by a large number of outlying hamlets.

'Particular causal factors in local regions have promoted rural dispersion of residence. Commercial agriculture and the development of transport systems are important in this respect'.[28] Improved road and rail transport sequent easier travel and transport, have encouraged the growth of n along the road, or near the railway station. Sometimes the village s prefer to live near their shops on the roadside or near the railway stat it saves their time and ensures greater security to the shop goods. in the milk and vegetable supply zone of cities, rural dispersion of has taken place along road and rail lines of easy access so that veget and milk may be easily transported daily to the cities. It is unc fluence of such factors that a rural scattering of homesteads has taken the Jaipur-Durgapura Road (which has the busiest transport service In newly reclaimed areas also, peasants prefer to live in scattered along the wells. Near Nimrana, much land was lying uncultiv some pioneer peasants settled themselves along the wells to till the l dually relations and castemates collected on these spots to help th peasants and thus new hamlets were created. Consequently, due t mentioned miscellaneous factors, thin scatterings or small patches settlement are to befound in many regions of East Rajasthan.

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[25] Nimrana is a small town in the distt. of Alwar.—Dhani Teliyan, Dhani Kumharan, Mena ki dhani, Gujar ki dhani etc.

[26] Blache—op. cit.—p. 316.

[27] Achrol is a fortified village situated on the Jaipur—Alwar Road.

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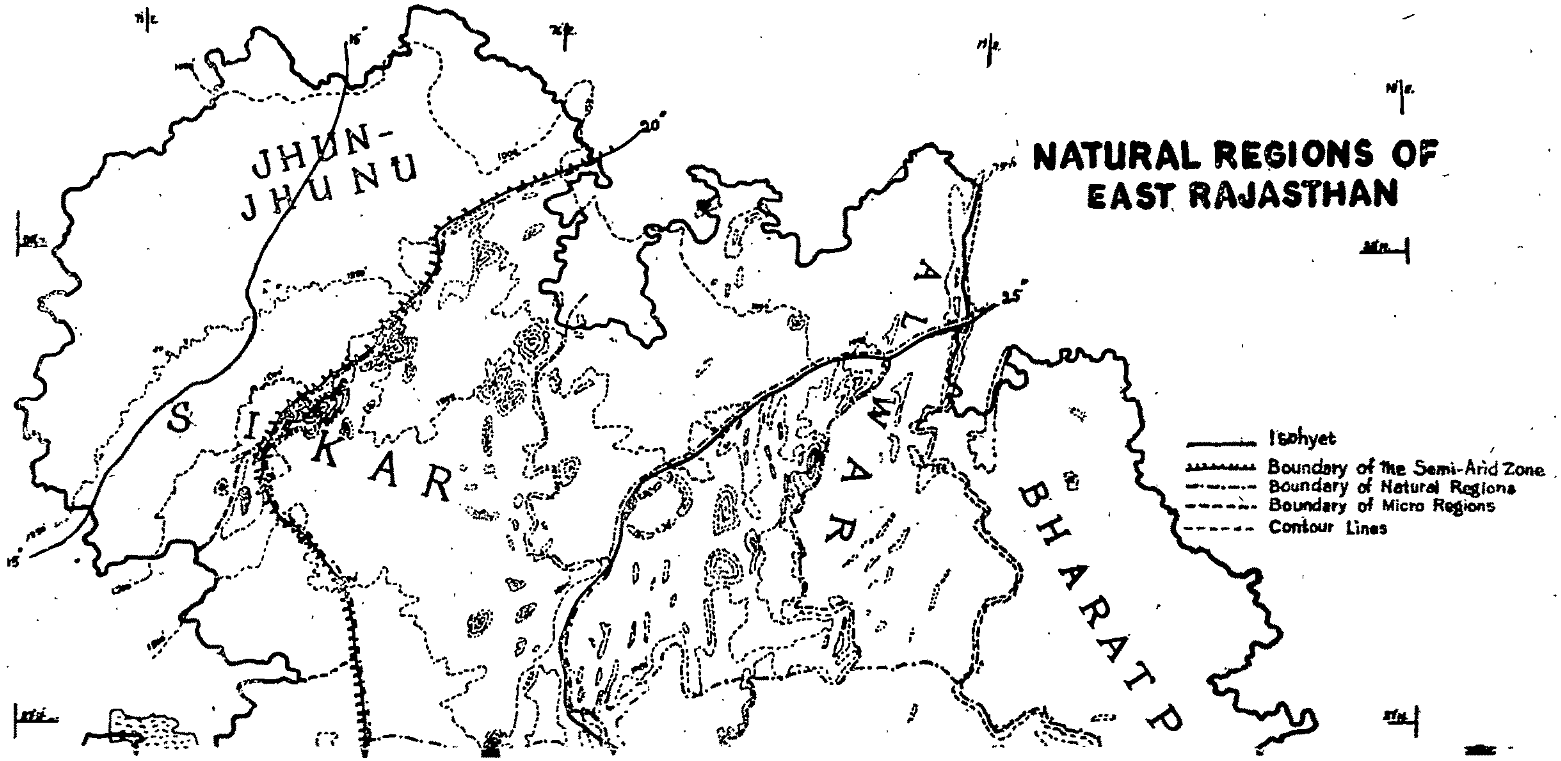
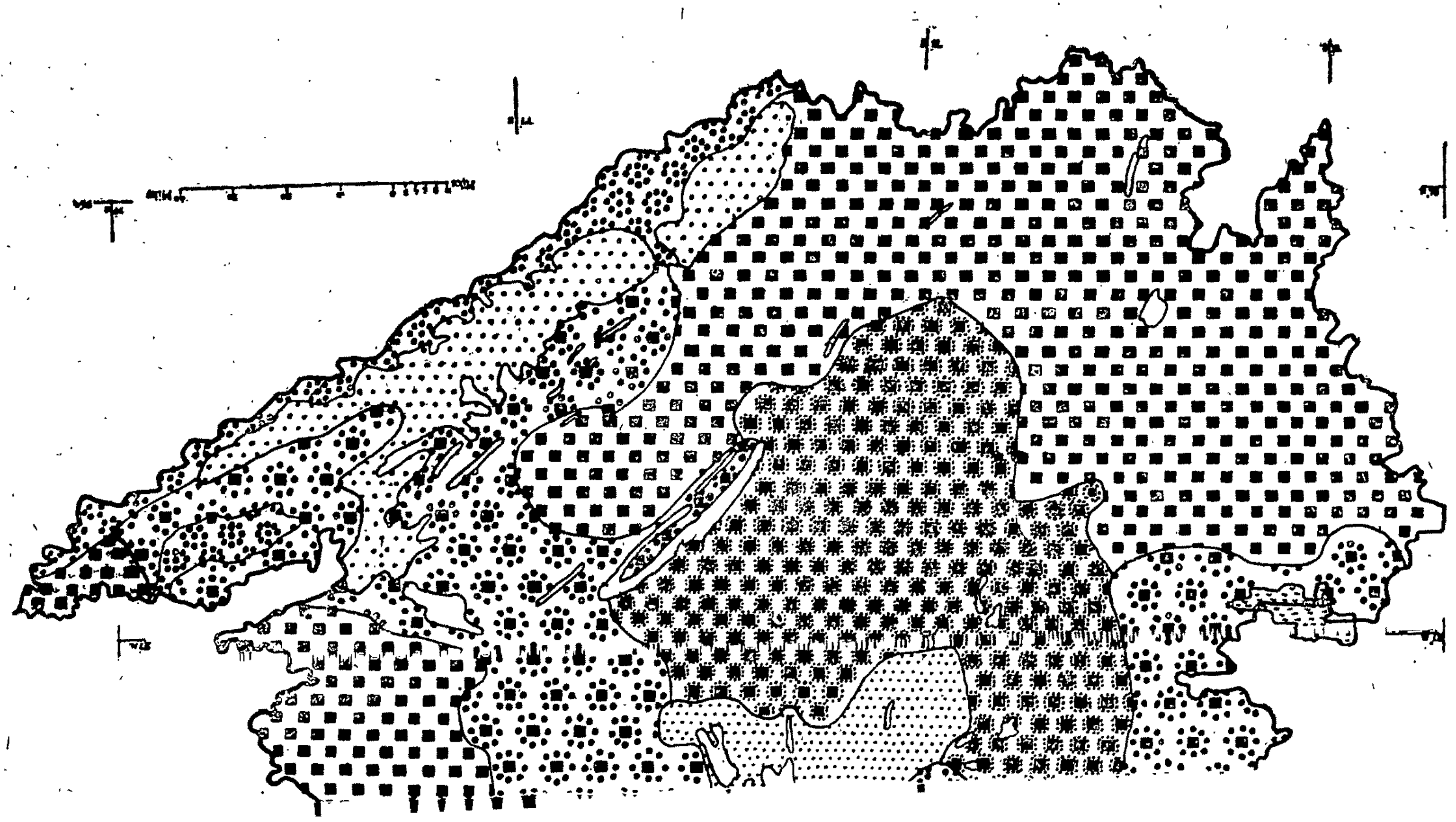
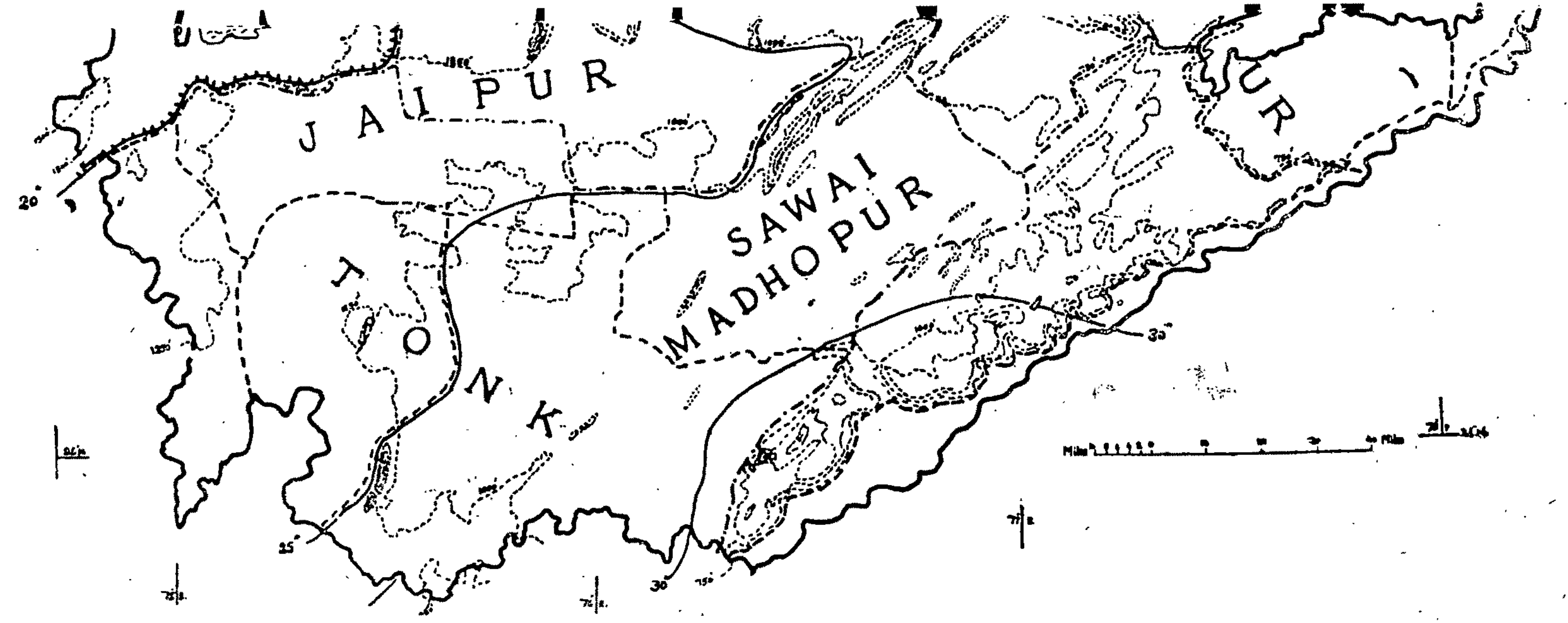
23. Spencer—op. cit. p. 136.

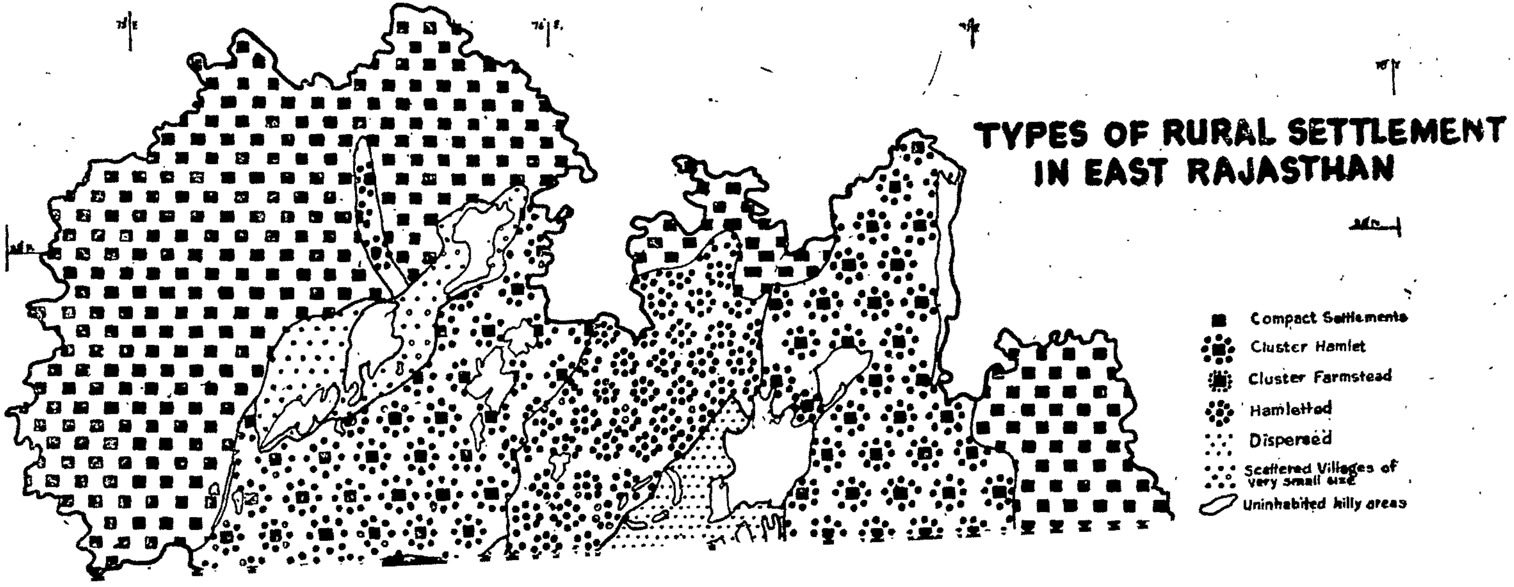


NATURAL REGIONS OF EAST RAJASTHAN

JHUN-JHUNU
SIKAR
ALWAR
BHARATP
20°
25°
15°
Isohyet
Boundary of the Semi-Arid Zone
Boundary of Natural Regions
Boundary of Micro Regions
Contour Lines




JAIPUR
UR
SAWAI MADHOPUR
TONK
20°
25°
30°
30°
Miles
40 Miles



TYPES OF RURAL SETTLEMENT IN EAST RAJASTHAN

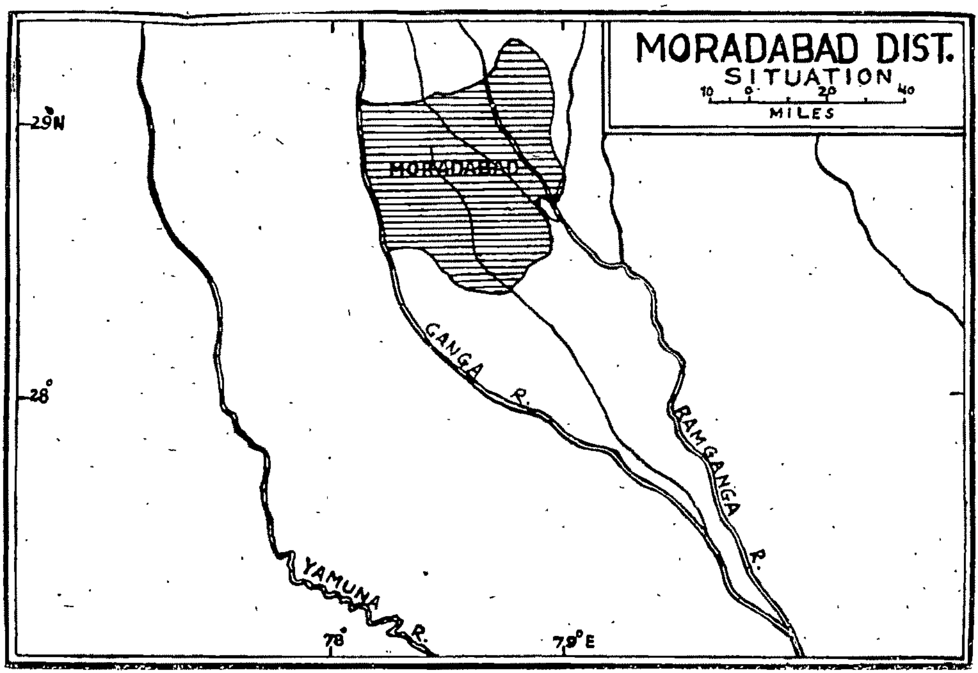
SOME FACTS ABOUT THE CULTIVATION OF WHEAT IN THE MORADABAD DISTRICT OF UTTAR PRADESH

S. L. Duggal, M. A.

Head of Geography Department, S. D. College, Muzaffarnagar.

Introductory

Situated in the North-west of Uttar Pradesh and forming part of the Ganga Plain, the Moradabad district is pre-eminently a wheat growing area. Taking an average of five years 1953-58[1], wheat alone covers 58.2% of the total rabi harvest while wheat mixed with gram covers 8·7% and wheat mixed with barley covers 6.2%. Thus the total wheat crop amounts to 73.1% of the total rabi harvest or about 40% of the net cultivated area in a year. This is more than 7.6% above the total acreage of all the foodgrains and pulses grown alone or mixed during the kharif harvest. This feature, however, is very old and even in the last century the average of the total wheat crop alone and mixed amounted to 70.1% of the total rabi harvest.[2]



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[1] Based on Sadar Qanungo's Milan Khasras for the years 1953-58.

[2] Based on Fisher, F. H., Gazetteer—N. W. P., Vol. IX, Pt. II, Moradabad, pp. 40-41.

VARIETIES

The bread wheat 'Triticum vulgare' is commonly grown in this district. Work on wheat breeding was started in India during the first decade of this century at the Agricultural Research Institute, Pusa (Bihar) now at New Delhi, mainly with a view to improving the grains, quality and yield of wheat in the country. A number of superior types were also developed by means of hybridization both at the Centre and in the States. Out of these Punjab 591, Pb. 409, C 13 and C 46 are popular in the district. Some of the indigenous varieties however, are still preferred to improved varieties in certain areas, *e.g.*, the Mundhia or Chandausi (semi-hard wheat) grown in the area round about Chandausi. Formerly the indigenous varieties were grown all over the district. But they are susceptible to rust.

PROGRESS

Owing mainly to the extension of irrigational facilities it is now possible to grow wheat on a larger area than formerly. In the years 1878-81, the average annual irrigated wheat, both alone and mixed, amounted to 14,309 acres[3] only whereas. in the years 1953-58, it amounts to 135,286 acres[4]. The difference between wheat acreage is +35.8%or 120, 744 acres only while that between irrigated wheat is +845.5% or 120,977 acres. There has been a significant extension of wheat cultivation in Hasanpur, Moradabad and Thakurdwara tahsils, which now have, respectively, 57.8%, 51.2% and 47.1% of their rabi in wheat alone[5]. In the beginning of this century, these ratios were about 50.0%, 47.4% and 44.4% respectively[6].

MIXED-CROPPING

A better season would always encourage a larger sowing for wheat alone than for wheat mixed, depending on the local soil-moisture and wheather conditions during the sowing period and during the preceding monsoon period, when the fields were prepared for rabi. So there may be a considerable shift from year to year between wheat alone and wheat mixed. When, however, we study the average conditions we find that though the total acreage under wheat mixed is not less now than what it was in the last quarter of the 19th century, yet its ratio to the total wheat crop has come down from 26.2% to 20.4%. The comparison is, however, more significant in relation to the mixtures, severally. While the wheat mixed with gram amounted on an average to 3.3% of the total wheat crop in the years 1878-81, it now amounts to 11.9% of that in the years 1953-58. This shows an appreciable extension of wheat cultivation in the areas of wetter and heavier soils, *e.g.*, Thakurdwara and Moradabad tahsils. The

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[3] Figures for 1878-81 are based on Fisher, F. H., Gazetteer, Moradabad. Ibid

[4] Figures for 1953-58 are based on Sadar Quanungo's Milan Khasras.

[5] *Ibid.*

[6] Nevill, H. R., Moradabad, A Gazetteer (1911), p. 33.

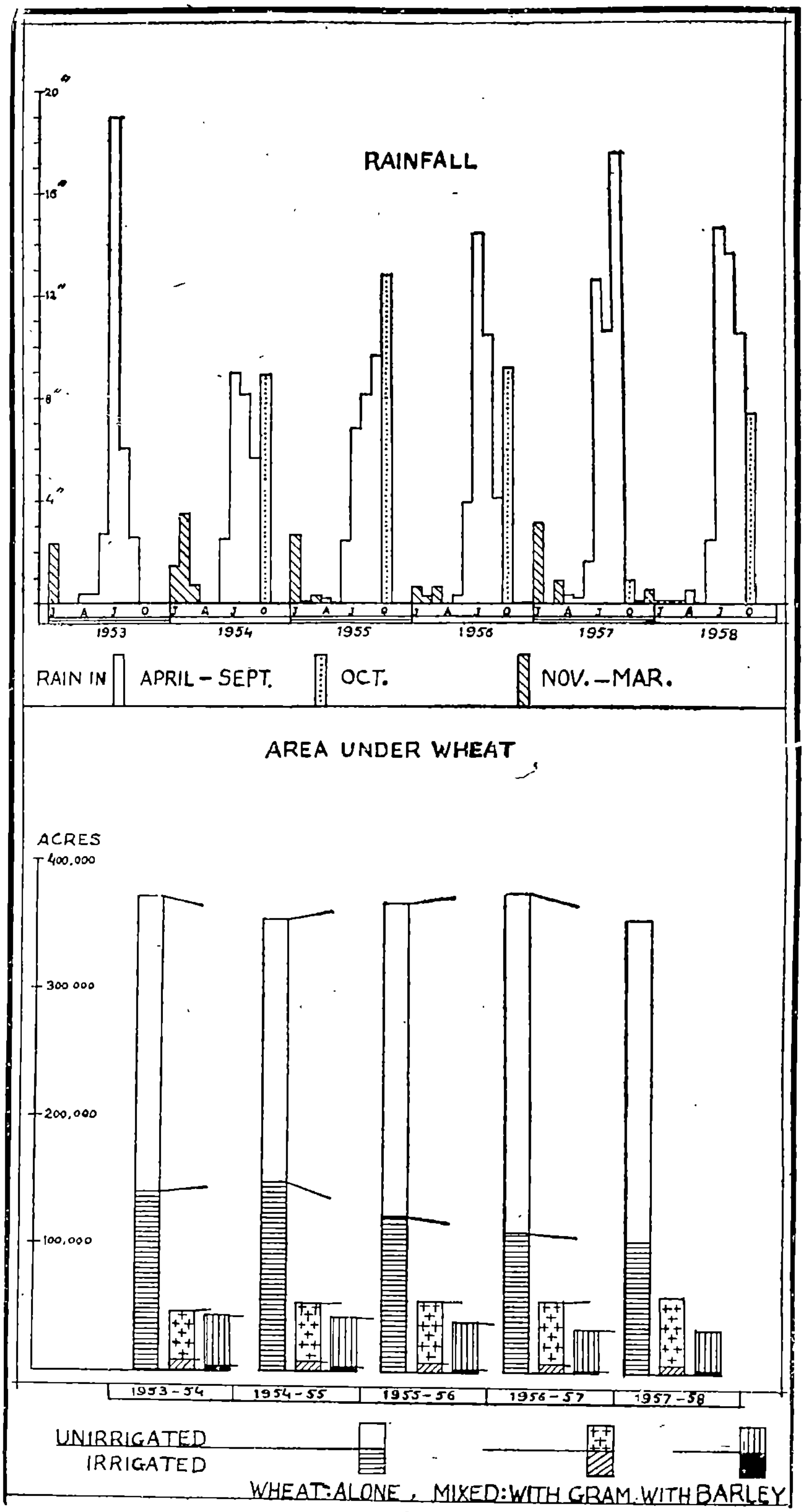
RAINFALL
20"
16"
12"
8"
4"
J A J O
1953
1954
1955
1956
1957
1958
RAIN IN APRIL-SEPT.
OCT.
NOV.-MAR.
AREA UNDER WHEAT
ACRES
400,000
300 000
200,000
100,000
1953-54
1954-55
1955-56
1956-57
1957-58
UNIRRIGATED
IRRIGATED
WHEAT:ALONE, MIXED:WITH GRAM, WITH BARLEY

FIG. 2

actual increase of this area is from 11,320 acres to 54,476 acres. On the other hand, the wheat mixed with barley has shown a sharp decline from 77,260 acres to 38,945 acres. It amounted, on an average, to 22·9% of the total wheat crop in the years 1878-81 but now it amounts to only 8.5% of that in the years 1953-58. This points towards an appreciable improvement in the western tracts having drier and lighter soils, where the extension of irrigational facilities through tube-wells seems to have promoted the cultivation of wheat as a single crop instead of its mixture with barley.

INFLUENCE OF RAINFALL

A study of the actual monthly rainfall figures, particularly during the rabi and in the season immediately preceding that, together with that of the acreage of wheat can give some indication of this fact. The figures in the tables 1 & 2 are given, here, by way of illustration. Fig. 2 shows the same graphically.

A critical appreciation of these figures shows that whenever the monsoon remains weak and is followed by a complete drought in November and December, more wheat needs irrigation as it happened in the years 1953-54 and 1954-55. When, however, September and October are sufficiently rainy, the need for the irrigation of wheat in the months of November and December is not so much since the October rains leave abundant soil-moisture for the wheat grain to germinate, properly. But, when moderate rain in October is followed by light showers in December, when usually the first watering is necessary, the need for irrigation of wheat becomes still lesser. It is the least, however, when the rain is well distributed throughout the whole rabi season as well as throughout the preceding kharif season. Total wheat acreage may, however, decline when

(1) either the hot season has remained too dry to permit the plough to work in all the fields likely to be devoted to the next rabi, as it happened in the year 1954-55,

(2) or the latter part of the rainy season is so much rainy as to leave too much of moisture in some of the fields to be suitable for wheat sowings, as it happened in 1957-58.

In the first case m r e than normal area is devoted to wheat mixed with barley or to barley alone, though some of it may also require irrigation. In the second case, comparatively more area is devoted to wheat mixed with gram or barley mixed with gram and the requirements of irrigation are reduced.

OTHER FACTORS

Wheat is the most important and most widely grown food crop. Its cultivation is rather simple and its adaptability to evironmental conditions is superior generally to most other crops. Moreover, compared to all other cereals, wheat produces a better and more palatable type of bread due to the presence of the complex protein, gluten, in its grains. After the Partition of country, Uttar Pradesh became the most important and predominant wheat growing State in India. Within U. P. the most important wheat growing areas lie in the west; Rohilkhand Division leading all other divisions of the State while within Rohilkhand the Moradabad district is credited with about 30% of the total wheat area.

Although wheat can grow almost anywhere, the best yields and performance are obtained on medium and heavy loams. The fields should be well-drained and preferably near some source of irrigation, as irrigated wheat gives superior yields. Fields green-manured during kharif are ideal but those under summer fallow are often preferable on account of their better moisture reserves. Fields which had a kharif legume are also good but fields which were under jowar, bajra or maize require adequate manuring if desired to be put under wheat. Fields which are quite in the open and get the longest hours of sunshine do better than those which suffer from shade effects and low lying situations. An exposed wheat crop suffers less from rust.

Wheat fields must be free from weeds, well-levelled and of good tilth and should contain enough moisture to ensure uniformly good germination, good stand and good yields. A rough seed bed results in a poor and uneven germination and gappy stands which ultimately become severely weedy so that the yields are lowered. Hot weather ploughing has been found useful not only in improving the physical condition of the soil but also in eliminating weeds, pests and diseases through exposure to the hot wind and sun during the months of May and June.

PREPARATION OF WHEAT FIELDS

The real preparation of the field for sowing, however, starts after the close of the rains. It is very essential that moisture is conserved in the unirrigated areas. The soil should be tightly packed in order to check evaporation. The 'pata' works for the same. The ploughing and levelling operations are best done in the very early hours of the morning before sunrise in order to conserve moisture. In case the rains have stopped early and there is shortage of soil, moisture, a preliminary watering (palewa) is given to the field before taking up the ploughings. Often as many as 14 ploughings are necessary but generally 7 to 8 ploughings, if efficiently done on suitable soil, may suffice. On irrigated lands, only five to six ploughings are usually given, at least one of these being with the furrow-turning plough. Of course, the greater the number of ploughings, each followed by 'pata', the better would be the field for wheat, since the wheat field, properly prepared and ready for receiving the seed, should have a fine mellow texture, free from weeds and stubbles and should have sufficient moisture to ensure uniform and good germination.

MANURIAL REQUIREMENTS

The optimum manurial requirement of the wheat crop, in this area, is about 50 lbs. nitrogen per acre.[7] Phosphates and potash do not give any beneficial results since in the continuously cultivated alluvial soils of this area, generally, it is only nitrogenous manure that is lacking and is needed to be replenished. If the field has been green manured with sanai (Crotalaria juncea) during the latter half of August no further manuring is necessary. It is necessary to ensure ploughing in of the 40 to 50 days old sanai green-manure during this period in order to allow sufficient time for its proper decomposition and incorporation into the soil during the rest of the monsoon period. In case of prolonged drought, owing to a break in the monsoons it may be necessary to irrigate such a field to hasten the proper decomposition of the burried sanai crop. Where organic manures like the farmyard manure and compost are used, about 150 to 200 maunds of them per acre would supply the required optimum of about 50 lbs. nitrogen per acre.[8] If sufficient quantity of these manures is not available, the difference can be made up with the help of castor-cake, groundnut cake, neem cake or mahuwa cake in a reasonably powdered form and spread uniformly on the field. Where a small quantity of the nitrogen requirement is supplied in the form of inorganic manures, it is better applied as a 'top dressing' with the first irrigation, about a month after the sowing. After the manure is applied the subsequent ploughings, each followed by the 'pata', incorporate the manure efficiently and evenly in the soil. Excess manuring is definitely harmful as it may lead to serious losses in yield through severe lodging due to excessive vegetative growth. It may also cause poor seed setting through delayed maturity besides exposing the crop to severe damage from rusts.

GROWING SEASON

The duration of the growing season for wheat in this area is approximately 120 to 140 days. Pb 591 and Pb 409 are moderately late varieties. Another medium late variety, Pb 518 has been grown to some extent but it is being given up because of its susceptibility to 'smut' and its rather low quality 'bhusa' as compared to that of Pb 591 or Pb 409. Winter temperatures persist long enough in this district, for the cultivation of medium late varieties. After full flowering, the wheat crop needs about two months or a little more for getting fully matured and ready for harvest. These two months must have sufficiently cool temperature and favourable weather essential for the proper development and maturity of the grains. In order to ensure this, the wheat crop should come into full flowering preferably as near about the middle of January as possible. In the eastern districts where the onset of summer temperatures is early, late varieties, which do not come into full flowering at this time, do not fare well. But, in the western districts like Moradabad the cooler temperatures persist longer and thus allow the successful cultivation of moderately late varieties which are generally better yielders than the early varieties.

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[7] Mitra, A. K. & Mathur V. S., Wheat and its Culture in the United Provinces, Deptt. of Agriculture. U. P., Bulletin No. 97, Supdt. Printing & Stationery U.P. Allahabad, 1949, p. 9

[8] *Ibid.*

In order to ensure a proper development and maturity of the grain and to avoid their shrivelled undergrowth, it is very essential to sow the crop as early as possible during the optimum period, the latter half of October.[9] This is also necessary to save the crop from being severely damaged by rust. C 13, a bearded wheat, is an early variety and if sown at the proper time is capable of getting ready for harvest in about 4½ months. It has a high yielding capacity too, and is particularly suitable for the irrigated areas, but unfortunately it has a lodging tendency. C 46 resembles C 13 very much. It is a good drought-resisting variety and yields better than the latter under unirrigated conditions while the latter is a better yielder under irrigation. Pb 591 is about 10 to 20 days later than C 13. It grows and yields better under irrigation. But Pb 409, also a late variety, gives a good performance under the unirrigated conditions. In any case, it is absolutely essential for wheat sowings to be completed, definitely and at the latest, by the 31st October. Later sown wheats suffer much from the rust disease, susceptibility to which may be reduced by a light top-dressing by phosphates and potash. It is well known that high humidity favours speedy development and spread of rusts. Heavy doses of watering should, therefore, be avoided particularly in January and February and on all cloudy days.[10]

IRRIGATION

About 30% of wheat alone, 13·6% of wheat mixed with gram and 6·4% of wheat mixed with barley is irrigated in this district.[11] A preliminary irrigation is done when the monsoon has ceased early and there is lack of moisture in the field. It is called 'Palewa'. Soon after the wheat is sown, the field is divided into small plots, known as 'Kiaries', in order to facilitate irrigation and to ensure economy in the use of water supplies. After a month of the sowing, when the wheat plants are about 4 to 6 inches high, the first irrigation to the actual crop becomes necessary. In cases, where at sowing time the moisture was slightly deficient, irrigation may be necessary a little earlier. Unless there has been sufficient rainfall at this time the first, usually light, watering to the young crop is very essential to ensure proper tillering and vegetative development without which the yields are bound to be affected adversely. The second, medium, watering becomes necessary at the time when the crop is nearly in full ears, in January, in order to ensure the proper setting and development of grains. These two irrigations are quite sufficient, provided the winter rains have been normal but, when the winter rains are not adequate or fail completely, one or two extra irrigations will be necessary to make up for this deficiency. But irrigations are beneficial only upto the time when the grains are still in the milk stage or the soft dough stage *i. e.*, immature. Irrigations given after that serve no useful purpose. They are often responsible for the crop lodging badly, rust spreading in humid conditions and heavy loss in yields. The demand of the crop for water is at its highest at the tillering and at the full flowering stage.

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[9] Mitra, A. K. & Mathur, V. S. *Ibid.* p. 13.

[10] *Ibid.* pp.13—21.

[11] Based on Sadar Qanungo's Milan Khasras for the years 1953—58.

WEEDS

After the crop is about 4 to 6 inches high and has received its first irrigation, weeding and hoeing becomes necessary in order to remove the weeds effectively and to avoid unnecessary competition for soil nutrients between them and the young crop. This intercultivation practice not only checks the growth of weeds, but also prevents the excessive loss of moisture from the soil and helps in soil aeration. In case this operation is attended to carefully and other conditions are favourable, the wheat crop grows vigorously and is soon dense enough to smother any further growth of weeds. A luxuriant crop indirectly controls weed growth and a top dressing of about 10 to 15 lbs. of nitrogen per acre (*i. e.*, 50 to 75 lbs. of ammonium sulphate pre acre) applied at the time of first irrigation encourages this vigorous growth. Bathua (Chenopodium album) is a very persistent weed of the wheat fields. This is, however, used for human feed as a leafy vegetable and as such, most of it is usually picked away from the fields when the crop is still young. Piazi (Asphodelus tenuifolius) is a very persistent weed capable of doing extensive damage to the wheat crop. It should be removed with its underground parts and destroyed by burning before its flowering and fruiting period. Motha (Cyperus rotundus) another weed should also be removed with its underground parts and tubers and burnt likewise. Hirankhuri (Convolvulus arvensis) is a twining and climbing deep-rooted weed and should be dug-out and destroyed.

EXTENT OF MIXED WHEAT

The practice of growing wheat mixed with gram, barley, rapeseed, etc., is followed to an appreciable extent by the cultivators in this district. Usually, the mixture is with one or two of these but, sometimes, they are all mixed together. As noted in the foregoing, the more common mixtures met with are wheat-gram (gaichani) in the humid tracts, and wheat-barley (gujai) in the drier tracts. These mixed crops are harvested, threshed and, usually, milled together into flour for consumption. The annual average of wheat mixed with gram amounts to 54,476 acres and that of wheat mixed with barley amounts to 38,945 acres so that about 16% of the total wheat harvest is mixed with gram and about 11.4% is mixed with barley. Mixed cropping of wheat helps, to some extent, to fulfil the diverse needs of the small land-holders and, at the same time, contributes towards a more complete utilization of land, for, these mixtures are grown where wheat alone cannot be. Mixed cropping seems to have a scientific basis in that the different products exploit the soil differently so that one type of plant nutrients in the soil are not taxed wholly. It ensures a better safeguard against a total crop failure if weather and pest conditions turn to be adverse for wheat but not so for gram, barley, etc.

CROP ROTATION

The more common rotations practised with wheat in this area are :

1. Jowar-gram-fallow-wheat.
2. Jowar-mixed with arhar-fallow-wheat.
3. Early paddy-peas-jowar mixed with arhar-fallow-wheat.
4. Sugarcane-fallow-wheat.
5. Green manure-wheat-fallow-sugarcane.
6. Green manure-sugarcane-fallow-wheat.
7. Early groundnut-wheat mixed with barley.
8. Early maize-wheat
9. Jowar fodder-gram-green manure-wheat.
10. Wheat-fallow-wheat.
11. Jowar mixed with guar-wheat.

On the irrigated lands, sugarcane is rotated with wheat. In the unirrigated areas, the rotation varies with the amount of rainfall received; where the rainfall is low, only one crop, wheat may be grown. The land is kept fallow in the preceding kharif and the moisture conserved. Where the rainfall is higher, a common rotation is to grow wheat alone in one year, gram, jowar or bajra as a fodder crop in the following years. But it will be seen from the above that the greater tendency is to take wheat preferably after a kharif fallow or, sometimes, after a kharif green manure. This is due to the lack, so far, of any suitable kharif leguminous crop of sufficiently short duration to precede wheat. Early Urd (Phaseolus radiatus) and early moong (Phaseolus mungo) are being introduced. Both these (particularly Moong T-1) are of about 60 day's duration and thus not only fit in very well in the rotation, but also will give an extra pulse crop besides its beneficial effects on the following crop (yielding one cutting, the rest of the crop being ploughed in). Guar (Cyamopsis psoralioides) is also a good green manure crop. Around towns, however, where high intensities of cropping are practised, wheat is rotated with vegetables, potatoes, maize (tender), tuber crops etc.

HARVESTING AND THRESHING

The wheat crop should be harvested only when it is dead ripe, *i. e.*, when the ear stalks become thoroughly dry and snap easily on being bent sharply. It is necessary not only for easy threshing of grains but also because good 'bhusa' can be made only if the wheat straw is dead ripe and breaks easily into bits during the threshing operations. Harvesting period for early varieties is from mid-April to the end of April. For late varieties, it is upto mid-May. The 'banjars' lying near the village sites are used for the purpose of threshing since it is more convenient to watch the stacks near the basti than away from it. To avoid the harvested crop lying for long periods in the fields exposed to the risk of damage from adverse weather conditions such as storms and rains which occur at this period and also from fire, risk from which is also very great, threshing operations are completed as early as possible. The threshing operation is done by trampling with the bullocks. The proportion of grain to straw varies according to different varieties, efficiency of cultivation, weather conditions, etc. Generally speaking, the yield of straw is about twice that of grain. The harvested and threshed wheat is then cleaned, graded and dried in the open. Then it is taken to storage rooms or sold to the trader on the threshing ground.

SEED RATE

Theoretically, a good crop of wheat has about 60,000 plants to the acre and as such about 60,000 seeds weighing about 6 lbs. only should suffice provided each seed germinates and the plant from each seed establishes itself and survives till harvest.[12] Actually, however, quite a large number of seeds and plants die depending upon the soil and weather conditions and the white ant activity so that under very good conditions usually 70 to 75 lbs. of seed per acre is required to produce a uniform and vigorous growth. But under adverse conditions 90 to 100 lbs. per acre may be required to ensure an uniform stand.[13] If the soil is heavy and moist or the moisture content of the field is deficient or if the sowing is unavoidably delayed, it is safer to use a higher seed rate. Sowings done with a seed drill, which ensures uniform distribution, requires a lower seed rate than when the sowing is done by hand behind the plough. Well-developed plump seed from a well-fertilized vigorous crop is undoubtedly the best seed material to use. But even slightly shrivelled seed may give good yields under favourable conditions. The depth at which the seeds are placed at the sowing is a very important factor. Generally speaking, deeper sowings 2½ to 3 inches are necessary in rough, dry and light soils, while shallower sowings about 1½ inches are desirable on moist or heavy soils. Generally, the crop is sown by hand behind the plough, usually a woman walking behind the plough dropping the seed in the furrows by her hand. This process gives a very uniform stand. But, the sowings done with the seed-drill ensure a more uniform distribution and also are, often, economical in seed rate. In the small fields, however, sowing behind the plough is more practical. The best spacing for the wheat crop is 9 inches beween the rows. This distance is automatically obtained when sowing is done behind the 'desi' plough. For mixed cropping the proportion of wheat seed varies according to the liking of the peasant.

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[12] Mitra, A. K. & Mathur, V. S. op, cit, p. 23.

[13] *Ibid.*

DISEASES

Among the diseases which affect the wheat crop, rust is the most extensively occurring one. The orange and yellow rusts are the first to appear in the season, often both at very nearly the same period. The black rust is the last to appear.

Table 1

Areas under Rabi cereals in the years 1953-58

Wheat alone (acres)[14]

Particulars	1953-54	1954-55	1955-56	1956-57	1957-58
Irrigated	140,975	148,798	121,752	111,023	104,361
Unirrigated	231,174	205,206	246,511	264,518	251,111
Total	372,149	354,004	368,263	375,541	355,472

Wheat mixed with gram

Irrigated	8,309	8,632	6,968	6,352	6,686
Unirrigated	38,031	44,637	49,014	49,520	54,229
Total	46,340	53,269	55,982	55,872	60,915

Wheat mixed with barley

Irrigated	3,426	3,407	2,164	1,558	2,018
Unirrigated	40,293	39,768	37,587	32,863	31,640
Total	43,719	43,175	39,751	34,421	33,658

Barley alone

Irrigated	4,534	4,099	2,940	2,477	2,676
Unirrigated	49,239	45,122	41,213	36,219	31,251
Total	53,773	49,221	44,153	38,696	33,927

[14] Figures based on Sadar Qanungo's Milan Khasras for the respective years.

Barley mixed with gram

Irrigated	927	765	796	630	353
Unirrigated	4,376	6,011	8,559	9,703	9,109
Total	5,303	6,776	9,355	10,333	9,462
Remarks reg: rainfall	Monsoon week in Aug. Sept. Drought in Oct., Nov., Dec.	Monsoon week throughout. Drought in Nov.	Sept. & Oct. rainy.	Moderate rain in Oct., Dec. & Jan.	Light rain throughout rabi, heavy rain in July & Sept.

Table 2

Actual Monthly Rainfall in the years 1953-58.

Month	Rainfall (inches) in the years[15]					
	1953	1954	1955	1956	1957	1958
January	2.345	1.553	2.655	0.67	3.15	0.14
February	...	3.565	0.057	0.29	...	0.15
March	...	0.767	0.278	0.66	0.89	0.16
April	0.377	...	0.152	...	0.35	0.51
May	0.373	...	0.002	0.37	0.26	0.01
June	2.767	2.467	2.452	3.92	1.62	2.52
July	18.963	9.062	6.818	14.48	12.61	14.68
August	6.050	8.115	8.173	10.45	10.66	13.75
September	2.590	5.690	9.785	4.14	17.62	10.47
October	...	8.948	12.818	9.21	0.87	7.40
November	...	...	...	...	0.12	...
December	...	...	...	0.03	0.55	...
Total	33.465	40.167	43.190	44.220	48.70	49.79

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[15] Monthly rainfall figures are the averages of the six rain recording centres at tahsil headquarters.

HISTORICAL AND CULTURAL GEOGRAPHY OF THE GANGA VALLEY IN ETAH DISTRICT

T. R. SHARMA, M. A., Ph.D.
Professor of Commerce, B. R. College, Agra.

In the Jan. 1960, Part I, issue of Volume VIII of this Journal the main physical aspects of the Ganga Valley region in the Etah district have been discussed at some length. The main physical features emerging from the shift of the main current of the Ganga away from the Old High Bank have been clearly defined and explained; the nature of the soil, natural vegetation, animal life and drainage have all been discussed in their proper sequence. All this discussion has prepared the ground for a detailed analysis of the cultural trends in the region.

In this paper it is proposed to study the trends in various aspects of the utilisation of land in the region (like land use and cropping patterns, etc.), prices and the changes in the social life of the people living in this part of the Ganga Valley. For the discussion of the agricultural and social aspects the area unit chosen is the Aliganj Tahsil of Etah district comprising the four parganas of Azamnagar, Barna, Patiali and Nidhpur and the period half a century from 1906 to 1956.

LAND USE

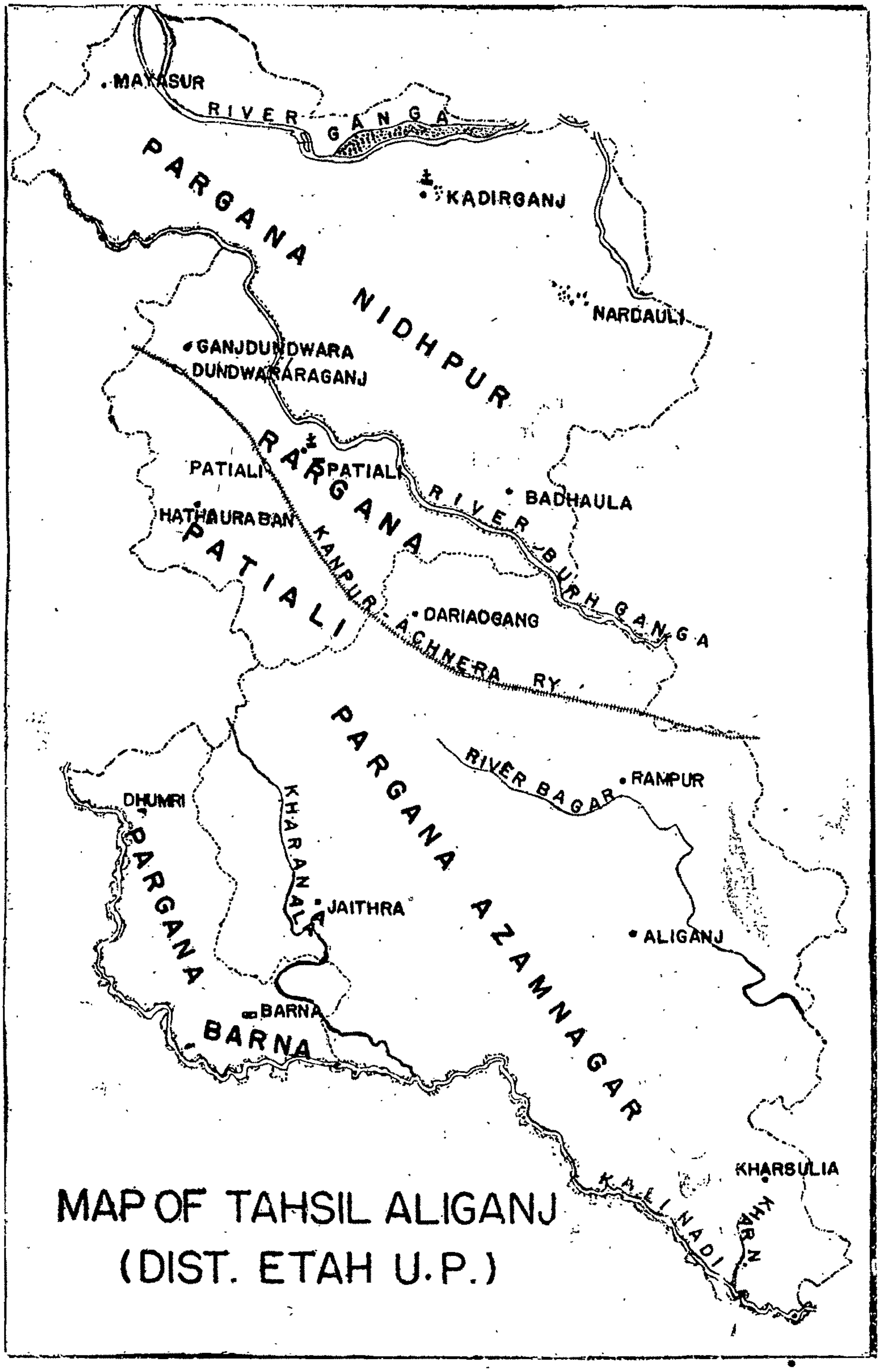
It has already been stated in the previous paper referred to above that the area under cultivation in the Etah district at the time of the first land settlement in 1833 was 5,45,027 acres. By the time of the second settlement in 1873 the cultivated area rose to 7,16,661 acres under conditions of better law and order. In four decades the cultivated area increased by 31·56%. The third settlement of 1905 came just after a prolonged period of water-logging. Although the loss due to water-logging was said to have been made up by 1902, the area under cultivation was only 7,05,867 acres. In the year 1956 it was 7,72,713 acres which showed an increase of about 42% over the area of 1833. The increase in the first four decades after the first settlement was nearly 32% and then after more than eight decades (more than twice the period) it increased only by 10% more to a maximum of 42%. These figures indicate that perhaps the last limit has been reached and there is no room for any further extension of agriculture.

Table 1 shows that in Azamnagar and Patiali parganas, partly covering the Tarai and partly the Pahara, the percentage of cultivated land was over 72 of the total area while in Nidhpur, lying wholly in the Tarai, the percentage of cultivated land was only 50 of the total area, the remaining 50% was represented by 16% of waste and 34% of culturable land. In

Table 1

Area Statement of Tahsil Aliganj 1314 Fasli (1906-1907 A. D.)

Pargana & Tahsil	Total area (acres)	Waste		Culturable		Cultivated				Double cropped	
		Area (acres)	% to total area	Area (acres)	% to total area	Irrigated	Dry	Total	% to total area	Area (acres)	% to total cultivated area
Azam Nagar Pargana	161,874	9,698	6.0	35,283	21.8	34,256	82,637	116,893	72.2	14,716	12.58
Barna Pargana	24,315	1,181	4.8	2,516	10.4	6,005	14,613	20,618	84.8	1,942	9.41
Patiali Pargana	42,054	2162	5.0	9,494	22.6	7,969	22,429	30,398	72.4	4,534	14.91
Nidhpur Pargana	110,086	17,517	15.9	37,209	33.8	8,127	47,233	55,360	50.3	11,457	20.69
Tahsil Aliganj	338,329	30,558	9.31	84,502	24.98	56,357	166,912	223,269	65.71	32,649	14.62
District total	1111,463	114,390	10.29	258,742	23.27			738,331	66.42		



MAP OF TAHSIL ALIGANJ
(DIST. ETAH U.P.)

the pargana of Barna which lies wholly out-side this region the percentage of cultivated area was 85 of the total area.

Table 2 gives a picture as it stood half a century after 1314 Fasli, *i.e.*, in 1364 Fasli. The table shows that by the most strenuous efforts of half a century perhaps under the heavy pressure of rapidly increasing population man has succeeded in pushing the margin of cultivation only by about 7%. It will also be observed that this margin has been obtained mainly from the culturable. One of the most remarkable facts emerging from the table is the position of Pargana Barna where the percentage of cultivated area at about 85 has stood virtually unaltered during the period of half a century. The percentage of the double cropped area in Tahsil Aliganj rose from 14.62 of the total cultivated in 1314 F. to 23.06 in 1364 F. In the pre-canal irrigation era the double cropped area was only 2.2% of the total cultivated area in 1873. These facts are red signals and writings on the wall to warn us that we have almost reached the limit of cultivation. The remedy for food shortage can only be found in the most intensive cultivation of the available land in all its implications and in applying suitable methods of controlling the growth of population.

Table 3 gives us similar data at the village level. Mayasur is so located in the Tarai that it is not subject to the depredations of either Ganga or Burh-Ganga. Here more than 84% of the total area of the village is under cultivation. It is a small scale model of pargana Nidhpur. Village Badhola on its western side comes under the influence of Burh-Ganga and the percentage of cultivated area is 72 only. Village Nardoli depicts the typical conditions of a village under river erosion. As stated earlier the village is under attack by the main stream of the Ganga. Nearly half the area of the village has become Kham (temporary) and only half is Pukhta (Permanent). In the year 1951-52, 33% of the Kham area was under cultivation, 40% was culturable and 27% was waste. Through a process of slow erosion the picture has been so tragically altered during a brief period of five years that the cultivated area is only a little less than 9%. Nearly 24% has been eaten away by the eroding current. The culturable has shot up to 55% from 40% and the waste to 36% from 27%. The miserable plight of the poor inhabitants of the village and the cultivators can be better imagined than described. Similar misery is at present prevalent throughout the Quadirganj sector of the Ganga where erosion is in process.

CROPPING PATTERN

Now we propose to take up a brief description of the important crops grown in the region. The statistics available for the year 1314 F. (Table 4) are not sufficiently detailed. Nearly 12% in Kharif and 36% in Rabi has been kept under miscellaneous crops. These high percentages of unclassified crops make the picture blurred. But even then certain broad generalisations

Table 2

Area Statement Tahsil Aliganj 1364 Fasli (1956—57 A. D.)

Pargana	Total Area (acres)	Waste Land		Culturable Waste		Cultivated land		Double cropped area	
		Area (acres)	% to total area	Area (acres)	% to total area	Area (acres)	% to total area	Area (acres)	Total cultivated
1. Azam Nagar	161876	9060	5.60	28085	17·35	124731	77·05	27732	22·23
2. Barna	24267	1100	4·54	2419	9·97	20748	85·49	5400	26·02
3. Patiali	42053	2288	5·44	6259	14·88	33506	79·68	8973	26·78
4. Nidhpur	102156	15698	15·37	28300	27·70	58158	56·93	12597	21·65
Total of Tahsil	330352	28146	8·52	65063	19·70	237143	71·78	54702	23·06
Distt. Total	1097982	102315	9·32	222954	20·30	772713	70.38	250887	

Table 3

Area Statement of Three big villages in the Tarai (Tahsil Aliganj)

Name of Village	Total Uncultivated and cultivated area 1359 Fasli							Uncultivated and cultivated area 1364 Fasli (1956-57)					
	Area (acres)	Waste (acres)	%	Culturable waste(acres)	%	Cultivated area (acres)	%	Waste (acres)	%	Culturable waste(acres)	%	Cultivated area (acres)	%
1. Nardoli (Pukhta)	3439	210	6.11	463	13.46	2766	80.43	268	7.79	385	11.19	2786	81.02
2. Mardoli Kham	3943	1082	27.44	1579	40.05	1282	32.51	1423	36.09	2180	55.29	340	8.62
3. Mayasur	1275	69	5.41	152	11.93	1054	82.66	62	4.86	141	11.06	1072	84.08
4. Bodhola	4919	210	4.27	1048	21.30	3661	74.43	209	4.26	1158	23.54	3552	72.20

Table 4

Cropping Pattern of Tahsil Aliganj (1314 Fasli or 1906-1907)

Kharif	Area (acres)	%	Rabi	Area (acres)	%
Jwar and Arhar	28,515	21.92	Wheat	56,235	46.65
Bajra and Arhar	55,530	42.68	Barley	11,744	9.74
Maize	14,920	11.46	Gram	5,524	4.58
Cotton and Arhar	8,359	6.43	Opium	3,851	3.19
Rice	7,300	5.61	Miscellaneous	43,213	35.84
Miscellaneous	15,497	11.90			
Total	130,121	100.00	Total	120,567	100.00

are possible. Of the total area under Kharif 81.67% was under cereal crops. The most important crop was Bajra occupying 42.68% of the area. Rice was a minor crop grown in 5.61% of the total area only. The only cash crop of the Kharif was cotton grown on 6.43% of the area. Up to the end of the 19th century perhaps the most important crop of the Pahara was indigo. It was not grown in the Tarai. Indigo was sown in March and harvested in August. Ruins of indigo factories are found scattered all over the Pahara area. One comes across the ruins of a factory at a distance of every two or three miles. The fallen leaves of the indigo plant were a very rich source of manure and the fields from which indigo was harvested gave very heavy wheat crop as a second crop. Indigo disappeared from the region after the discovery of chemical dyes in Germany. The cultivation of indigo was not taken up by the factories. The proprietors of factories gave advances to the peasants who contracted to grow indigo and to supply it to the factories at agreed prices.

After indigo cotton grew in importance. This was also a crop mainly of the Pahara area. Upto the time of the first world war huge heaps of cotton could be seen piled up in the compounds of the ginning factories at Ganj Dundwara. Cotton was useful not only as a cash crop, it fulfilled many and varied needs of farmers even after the introduction of the mill cloth for personal wear. The handgins, and spinning wheels were used for producing a substantial quantity of yarn almost in all peasant families and the cloth woven locally on hand-looms was used for the preparation of pichhauras (rough chaddars), firshes for festive occasions as well as for use on bullock-carts, quilt covers, and many other useful articles of the family use. A few years after the first world war the cultivation of cotton began to decline and now for every thread of cotton the peasant is dependent upon the market. Different reasons for the decline of cotton are advanced by different people. Some are of the opinion that the main reason of the decline was a fall in the price of cotton which made its cultivation unattractive as certain other cash crops like sugar-cane appeared to be more remunerative. Others hold the view that the main reason of the decline of cotton was the failure of new varieties introduced by the government which gave very unsatisfactory yields per acre.

In the Rabi crop wheat held the place of pride as it occupied 46.65% of the total area. The only other interesting feature was the cultivation of opium which occupied 3.19% of the area. Poppy was cultivated under strict Government control. Inspectors paid a number of visits from the time of the sowing of the crop to its maturity and final disposal. Scratching of the pods gave a milky substance which solidified quickly like a soft gum. The purchase of the entire quantity of this product was a monopoly of the Government. With the stoppage of exports of opium to China the cultivation of poppy disappeared entirely.

The crop statistics for one of the recent years 1364 F. are more detailed and give a good picture of the cropping pattern existing at the present time. During the intervening period of fifty years between 1314 F. and 1364 F. a number of changes seem to have taken place. Cotton which occupied 6.43% of the area of Kharif in 1314 F. has almost reached a vanishing point in 1364 F. as it occupied only 0.42% of the Kharif area. Its position is the worst in the true Tarai as it accounts for only 0.05% of the Kharif area in Nidhpur, lying almost wholly between the Ganga and the Burh-Ganga. The position of cotton has now been taken by sugarcane which was not mentioned as an important crop in 1314 F. but now accounts for 6.83% of the Kharif area. Sugarcane has been a traditional crop of the Ganga Valley but it was grown mostly for making gur and Khand for local use. But after 1930 A. D. it assumed the character of a cash crop mainly meant for the market, cane being usually sold to sugar mills or Khandsari units. Unlike cotton requiring drier conditions, the sugarcane is at its best in the Tarai. This fact is well illustrated by the position of sugarcane in Pargana Nidhpur where it occupies almost 10% of the Kharif area, the highest in the tahsil. The cultivation of sugarcane is perhaps cheapest in the Tarai, where no irrigation is required either before or after planting. The soil is so rich that almost no manure is needed. On the Pahara pre-planting irrigation is compulsory and then again between March and July three to four waterings of the plants are essential before the monsoon arrives. Manuring is also very necessary. All these things raise the cost of sugarcane cultivation of the Pahara. A comparatively new cash crop has entered the region during the last decade. It is the groundnut. Fifty years back it was not heard of in the region as a crop at all. Perhaps the great success of hydrogenated groundnut oil as a leading fat in the diet of the people of India, the high prices of vegetable oils and the suitability of sandy soil for its cultivation have all combined to give it an important place in the Kharif crops of the region as it occupied 10.29% of the Kharif area. Groundnut is at its best in the sandy areas of the Tarai and occupies 15.78% of the Kharif area in Nidhpur. A cotton ginning factory lying idle at Ganj-Dundwara has been converted into an oil mill and its compound now attracts similar big heaps of ground-nut as it did of cotton previously. Its place in Pargana Barna, where it accounts for less than 2% of the area, is surprisingly low. Sweet potato again is a typical Tarai product though grown elsewhere also. From Soron to Kaimganj it is grown in all parts of the Tarai and in pargana Nidhpur it occupies 5.16% of the Kharif area. It is a very important article of food of the people, is one of the important items of exports of the Tarai to the Pahara, and in years suffering from scarcity of the cereals sweet potato acts as a sheet anchor for the extremely serious food problem of the people both in the Tarai and on the Pahara. There is one area round about village Mayasur below the town of Sahawar, where the cultivation of a different root-vegetable crop Ratalu is important. Sweet potato is a heavy yielding crop and a very great stabilising factor in critical food situation in lean years in

Table 5

Trends in the cultivation of important cash crops (Quiquennial average)—area in acres

(For the whole district Etah)

	Sugarcane	Cotton	Indigo	Opium	Ground-nuts	Total	Total food crops		Total non-food crops	
							Area	%	Area	%
1901-06	16,352	36,606	12,129	8,335	—	73,422	714,967	88.27	98,864	11.73
1906-11	13,869	64,049	1,108	6,483	—	85,509	730,262	86.50	113,662	13.50
1911-16	13,741	64,177	1,240	2,490	—	81,648	733,722	86.76	112,108	13.24
1916-21	15,670	62,547	7,945	1,688	—	86,850	727,951	86.05	118,081	13.95
1921-26	18,911	48,288	1,858	1,252	—	70,310	706,298	87.37	101,516	12.63
1926-31	16,614	46,263	249	—	—	63,126	708,848	87.85	97,677	12.15
1931-36	21,885	39,059	—	—	—	60,944	727,428	87.69	101,628	13.31
1936-41	24,710	32,745	—	—	—	57,455	763,841	87.90	104,812	12.10
1941-46	23,243	15,520	—	—	1,755	37,518	817,546	91.91	71,767	8.09
1946-51	27,593	3,341	—	—	6,525	37,359	861,926	92.89	74,302	7.11

the local areas. But so far this position of the crop has not been recognized by the Government as virtually nothing has been done for its improvement.

In the Kharif seasons (Table 6), 75.30% of the total area is devoted to cereal crops of which 48.43% is taken up by Bajra alone. Next in importance comes maize occupying 15.57% of the Kharif area. Maize crop is of a very great significane to the peasants as it replenishes the stock of his food supply in August, just mid-way between the rabi harvest in April and the kharif harvest in November. Its strategic position in the food calendar of the peasant is the reason for its cultivation. Jwar and rice take up 7.32% and 3.98% respectively of the area and as such may be considered as crops of small importance. As is clear from the distribution of crops in Pargana Nidhpur, true Tarai is more suitable for Maize (18.37%), Jwar (12.31%) and rice (4.54%). The area occupied by Bajra is the lowest in this pargana, being only 31.23% of the total kharif area.

The Rabi crop (Table 7) presents a rather dull pattern as 94.26% of the area is devoted to the cultivation of cereal crops only, of which 44.42% is occupied by pure wheat, 21.35% by wheat and gram or barley mixtures, and the remaining 28.49% by other inferior grains. The superiority of the Tarai region is proved by Pargana Nidhpur where the percentage of wheat acreage is the highest, being 60.52; wheat, gram or barley mixtures account for 12.46% and other inferior grains occupy only 23.20% of the area. Pargana Barna, a completely non-Tarai area is the poorest in this respect, the percentage of pure wheat acreage being only 30.70, of wheat and gram or barley mixtures 21.99 and of inferior grains 43.82. The poorest of all the crops is Bejhar being a mixture of barley, gram and pea. Its percentage (15.21) is the highest in Pargana Barna. It will also be seen that after wheat and wheat mixtures, the next important rabi crop of the season is the Pea. The cash crops like oil seeds and tobacco occupy a very inferior position in the scheme of rabi crops. Oil seeds are rarely sown as a separate crop; usually they are mixed with almost all the rabi crops. They mature earlier and are gathered up before the harvesting of the main crops. A very interesting result of the study of the main crops, as indicated by Pargana Nidhpur, is that the Tarai is the land of wheat, maize, jwar, sugarcane, groundnut, rice and sweet-potato; really a very rich region where most of the crops are grown without irrigation and even without much of manure. In the Tarai wheat is constantly grown in soils which on the Pahara would be regarded as too sandy for it. It is this rich fertile soil of the Tarai which attracts and retains people in spite of all the hardships imposed by floods, erosion and other similar calamities inflicted on them by the rivers. A detailed study of the crops of 1364 F. rabi season also leads us to conclude that a major part of the unclassified area of 35.84% in 1314 F. (fifty years back) must have been devoted to inferior crops like pea, Bejhar etc. The differences in the percentages of major crops like Bajra, maize and wheat in the two years (1314 F. and 1364 F.) are not wide.

Table 6

Cropping Pattern of Tahsil Aliganj, Kharif Crops 1364 Fasli or 1956-57

(Area of crops in acres)

Pargana	Total cultivated area	Jwar Arhar	Bajra Arhar	Maize	Cotton	Rice	Sugar-cane	Sweet potatoes	Ground-nut	Fodder	Other crops
Azamnagar	No. 73972	4291	38770	10978	301	3454	3546	1528	7061	2053	1990
	% 100	5.80	52.41	14.84	0.41	4.67	4.80	2.07	9.54	2.77	2.69
Barna	12234	817	7837	1680	71	219	739	223	209	261	178
	% 100	6.68	64.06	13.73	0.58	1.79	6.04	1.82	1.71	2.13	1.46
Patiali	22695	1108	12499	3246	207	448	1971	402	1888	495	431
	% 100	4.88	55.07	14.31	0.92	1.97	8.68	1.78	8.32	2.17	1.90
Nidhpur	37085	4565	11581	6813	18	1681	3704	1914	5854	691	264
	% 100	12.31	31.23	18.37	0.05	4.54	9.99	5.16	15.78	1.86	0.71
Grand Total	145986	10781	70687	22717	597	5802	9960	4067	15012	3500	2863
	% 100	7.32	48.43	15.57	0.42	3.98	6.83	2.79	10.29	2.40	1.97

Table 7

Cropping Pattern of Tahsil Aliganj Rabicrops (1364 f. or 1956-57)

(Area of crop in acres)

Pargana	Total cultivated area	Wheat	Wheat-gram	Wheat-barley	Barley	Gram	Pea	Bejhar	Potatoes	Oilseeds	Tobacco	Others
Azamnagar	77,805	31,590	10,433	9,782	4,588	5,064	8,189	2,625	1,231	1,568	2,465	270
Percentage	100	40.70	13.41	12.58	5.89	6.51	10.53	3.37	1.58	2.01	3.17	0.35
Barna	13,789	4,234	2,067	966	779	877	2,289	2,097	190	208	48	34
Percentage	100	30·70	14·99	7.00	5.65	6.36	16.60	15.21	1.38	1.51	0.35	0.25
Patiali	19,569	8,155	1,325	2,136	1,748	1,607	2,852	748	214	432	220	132
Percentage	100	41.67	6.77	10.92	8.94	8.17	14.58	3.83	1.09	2.21	1.14	0.68
Nidhpur	3,3543	20,301	2,391	1,789	2,139	494	3,953	1,194	217	465	39	561
Percentage	100	60.52	7.13	5.33	6.38	1.47	11.79	3.56	0.65	1.38	0.12	1.67
Grand Total	1,44,706	64,280	16,216	14,673	9,254	8,042	17,283	6,664	1,852	2,673	2,777	997
Percentage	100	44.42	11.21	10.14	6.39	5.56	11.94	4.60	1.28	1.85	1.92	0.69

The region on the whole is very well developed. In the Tarai area there is neither the need for irrigation nor the possibilities of developing any canals or tube-wells. The nature of the land makes it unsuitable for any of these things. The Pahara, as shown in the map (in January 1960 issue of the Journal), possesses one of the finest net work of canals and irrigation channels ; it is very well equipped with masonary wells. The construction of kachcha temporary wells is quite easy and cheap. The underground water is very near the surface and the working of the wells is easy. In majority of places the underground water is so easily accessible that in the Tarai as well as in the Pahara many peasants of small means use a wooden appliance called Dhenkali for irrigating small plots of vegetables. Rain water in the tanks is used for first watering of the rabi crops wherever it is available. The irrigation facilities of all types—canals, wells and tanks—taken together are excellent. Rarely there may be some scarcity of water for irrigation when the rotation system of the canals gets disturbed on account of the deficiencies of water in the river Ganga in early summer on account of some disturbance in the timely melting of the snow on the Himalayas. In the months of May and June in 1958 there was a great deficiency of river water and the canals could not be run to schedule as a result of which a very substantial percentage of sugarcane crop of the Pahara was totally lost. The same scarcity of water in the rivers of the Punjab affected the running of canals in the Punjab and in spite of the efforts of the Government of India to give preferential treatment to Pakistan canals she made all possible anti-Indian propaganda in outside countries accusing India of witholding water supplies. Perhaps people outside could hardly imagine or believe that the Indian peasant suffered more during this season than his Pakistani counterpart in the western Punjab. Barring such exceptions there seems to be an over-supply of canal water in normal years and a good deal of it is allowed to run into drainage channels. The water rates are charged by area and not by volume, so very often there is over-watering of crops resulting in sub-normal development of crops.

With good soil and water supply a very intensive use of the cultivated land is being made. In the kharif season usually a triple mixture of crops is sown; jwar and bajra are the main crops. The plants attain a height of six or seven feet. Down below at the roots creeper crops of Urd and Moong pulses spread themselves. Inter-mixed with Jwar and Bajra the slim Arhar plants continue to grow to a height of four or five feet. Urd and Moong being legumes enrich the soil; Jwar and Bajra draw their nourishment from the upper layer of the soil while Arhar plants strike their roots deeper still. Urd and Moong are gathered first and then the main crops of Jwar and Bajra are cut down in November. Arhar stands and begins to gather bulk and volume; it matures in April. This arrangement of crops, in which a mixture of crops is sown in the beginning of the rainy season in July, majority of them maturing at the end of the kharif season in November and one of them remaining in the fields till the end of the rabi season in April, really makes the entire area double cropped. In Aliganj tahsil such a mixture of crops in Kharif occupied 55.75% of the total area of Kharif in 1364 F. According to the official calculations which do not except Arhar as a second crop, the double cropped area in the Tahsil was 23.06% of the total cultivated area in 1364 F. Arhar may or may not be accepted as a second crop but the fact cannot be denied that the area in which Arhar is standing is not available for being used as a double cropped area and it sets a limit to the further extension of such area. So it seems that the limit of cultivation has been reached, that the land is being used quite intensively and that much room for the extension of double cropping is not left. This, however, does not mean that the production cannot be enhanced. There is yet enough room for raising agricultural production by raising per acre output by adopting better agricultural practices and by a liberal use of farm-yard and artificial manures. So the outlook is not pessimistic at all so far.

PRICES

A word about the storage and prices in the region is also necessary before concluding the discusion of crops. Upto the time of the advent of railways near about 1880, Khatti system of storage was quite common. Well-to-do people usually carrying on money-lending and grain-lending business kept the grain in under-ground khattis which were lined with Kankar slabs. After the beginning of the export of grains the local storage system declined in importance. The Kankar slabs used for lining of khattis are still found at the foot-steps of chaupals in many villages.

The level of prices about half a century back was rather low. It improved slowly with the increasing use of money and development of transport. Some interesting figures are given below to show the difference in the level of the present-day prices and the level of prices existing five or six decades back.

Table 8

Changes in prices and wages

50 or 60 years back	August 1958
Wheat: 7 dharies or 35 seers for a rupee	Wheat: 8 dharies or 40 seers for Rs. 40/-
Arhar : 10 dharies or 50 seers for a rupee	Arhar : 8 dharies or 40 seers for Rs. 30/-
	Pea & Barley: 8 dharies or 40 seers for Rs. 26/-

50 or 60 years back	August 1958
Ghee : 2 seer for a rupee	Ghee : 2½ seers for Rs. 20/-
Gazi : rough hand-spun and hand woven local cloth 2 pice per yard	Garha : slightly better handloom cloth of mill yan 8 annas a yard.
Field Labourer's wage : normally one anna per day	Field labour's wage : Normally Re. one and annas 4 per day.

For the first time the prices touched their zenith during the first world war when, for a short period, wheat began to sell at the rate of 2 seers (local) per rupee. These high prices gave a brief period of prosperity to the peasant. Again the prices touched a very low level after 1929 when wheat was sold at 15 or 16 seers (local) per rupee and 40 seers of inferior grain like Bejhar or pea could be had for Re. one or Rs. 1/4/-. This period lasted for four or five years and was little short of famine conditions for the peasant, who, on account of low prices of agricultural commodities, found himself entangled in heavy debt. He almost became a serf of the money lender. At the time of the rabi harvest he found himself compelled to part with the major part or sometimes the whole of his produce usually in part payment of his debts. An average peasant family, after transferring the entire produce to the money lender, began to receive monthly ration on the basis of minimum consumption of food. In many families bread was rationed to the members. In quite a large number of families sweet potatoes formed the basic diet for the whole day; only in the evening the members got a counted number of chaptis each. The condition of the people was really very miserable.

The prices began to move up slowly after 1932 or 1933 and after 1942 the rise was almost abrupt. The prices ruling in August 1958 were the highest ever reached in the region. The peasant is much better off than before. His diet has improved perhaps with the exception of dairy produce, which is now not available in the usual quantities consumed earlier. The number of pacca houses in the villages is fast increasing and an ever increasing number of families is able to send their children to schools. Some peasants, atleast, are also able to send their children to cities for higher education. The high prices ruling at present are more favourable to the peasant because the terms

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The System of weights is called Dhara. One pacca seer weighs 110 to 120 tolas. Official weights are known by the names 'Chhabbisa' and 'Numbery'. Perhaps the reason for the name 'Chhabbisa' is that the official seer of 80 tolas weighs 26 Madhoshahi old takas. The local pacca seer of dhara system on the other hand weighs 36 takas. The correct ratio between the two systems works out at 80:110·76. Roughly it can be said to be 8:11. Kachcha seer used locally in villages is of half the weight of the pacca seer.

of trade are in his favour; the rise in the prices of food, oil-seeds, raw materials etc., is much greater than it is in the prices of manufactures or semi-manufactures.

CHARACTER AND SOCIAL LIFE

Finally a brief description of the people who inhabit the region should form the concluding part of the entire discussion. Earlier the nature of the region has been discussed in some detail. The changes in the course of the river Ganga, the occurence of frequent floods and continued erosion in various parts make the life of the people difficult and full of dangers and adversities; their habitation and occupations are rendered unstable. We feel like saying that the people of the Tarai on both banks of the main stream almost ride on the crest of the waves of the stormy current during the rainy season almost every year and then at the beginning of the cold season some decide to land on one bank and some on the other; set up huts and start sowing the crops. How uncertain and adverturous the life of the dwellers of the Taria near the main current of the Ganga is? It has been so for centuries and centuries. Besides this, there is Katri consisiing of thickly growing long grasses like moonj and earlier there were dhak forest on the Pahara just near the bank. This thick vegetation always provided a good natural cover to wild life and bad characters and in times of external attack to the defenders of freedom.

This kind of environment makes people hardy, strong, rough and independence loving. In many respects they resemble frontier people. Perhaps since the 6th century A. D. the region has been predominently inhabited and controlled by the Rajputs. The north-western part in the vicinity of the towns of Soron, Sahawar, Amanpur and Sirhpura Solanki Rajputs held majority of the villages and formed the bulk of the population. They claim that their ancestors came to this area from Tonk and Toda in Rajasthan. To the east of the Solankis, Chauhans were and are an important part of the population from Patiali to Dhumri on the river Kali. The Chauhans of this area claim their descent from the same stock as the Chauhans of Mainpuri. To the south and east of Chauhans lives the famous clan of Rathors. They extend from Rampur-Aliganj areas of the Etah district to the neighbouring region of the Farrukhabad district. These Rathors claim to be the descendents of the Rathors of Kanauj. In the Tarai below Patiali Gaur Rajputs inhabit a large number of villages. Between the Solankis and Chauhans there is a small area near Sirhpura inhabited mainly by Brahmins called Chaurasi, perhaps because they originally occupied eighty four villages. Near Ganj Dundwara there is a compact area of Musalmans called Barha, perhaps originally being a group of twelve villages. Similarly near Kaimganj a considerable area is inhabited by Pathans. These Musalmans and Pathans must have come to these areas in the 13th century or even later.

About the nature and character of these rough, strong and freedom-loving people, it is said that the turbulence of disposition noticed by Hiuen Tsang when Etah was under a Hindu king developed under the alien Muslim rule into a savage intractability which often defied the power of the supreme government. Time and again the Musalman historians have mentioned the region in connection with the punitive expeditions rendered necessary by the rebellious lawlessness of the Etah Rajputs. In a number of instances the expeditions were led by the ruling sultans of Delhi in person to reduce the holders of forts and fastnesses to submission. In places like Patiali, Kampil, and Bhojpur forts were built and Afghan garrisons were placed. But many times after the departure of the Sultans or generals, the people threw off the yoke of the Muslim rule and reasserted their independence. In fact the refractory Rajputs could never be subdued sufficiently throughout the period of the Sultanate of Delhi.

Sultan Ghayasuddin Balban (1265-1287 A. D.) was compelled to march in person more than once and to stay for months together in the neighbourhood of Patiali and Kampil. Sultan Mohammad Bin Tughlak (1325-51 A. D.) had to undertake a considerable amount of bitter fighting in the neighbourhood of Patiali and Khor. In 1400 A. D. Iqbal Khan the General of Mahmood Shah led an attack against the Rajputs of Patiali. In 1414, 1416 and 1418 expeditions were led against the Rajputs of Kampil and Khor by Taj-ul-Mulk. The condition of the region continued almost to be similar upto the time of Akbar. After 1562 during the Mughal period the region seems to have remained comparatively quiet.

By the middle of the 18th century the leadership seems to have passed into the hands of the local muslim nobles. In 1749 Qaim Khan the Nawab of Farrukhabad fought Hafiz Rehmat Khan the Ruhela chief at Kadirganj on the banks of the Ganga and next Ahmad Khan, son of the Nawab of Farrukhabad, fought near Patiali against Nawab Wazir Safdar Jang, defeated him and repelled the attack. A few years after this the people of the region found themselves defending their hearths and homes against the Marathas. In 1801 Etah district was ceded to the British, who set up a small cantonment at Kasganj, which was burnt down by a refractory zamindar in 1804. About this very time Holkar passed through this region like a whirlwind, burning and pillaging, hotly pursued by Lord Lake. It is said that after this the peace of the region was never distrubed seriously upto 1857, though the lawless and disorderly character of the inhabitants often gave trouble to the authorities. During the year 1857 there was enough rebel activity in the area. English officers from Etah, Bareilly, and Budaun collected themselves at Patiali and there was a minor engagement at Kadirganj. In November 1857 the rebel forces suffered set-backs at Gangiri and Kasganj and sustained a severe defeat at Patiali. In March 1858 general Kenney with his force took position at Patiali and thereafter there was no trouble.

Although the Sansi and Habura criminal tribes were pushed out of the region after 1858, the character of the people which has been described as turbulent, rebellious, lawless and disorderly throughout the Muslim and British periods continued to be troublesome to the authorities even after the mutiny. Notorious gangs of dacoits developed in the region from time to time and taking advantage of the cover provided by the Dhak forest of Azamnagar and Katri areas of Tarai continued to defy the authority of law and operated in the districts of Etah, Budaun, Farrukhabad and Shahjahanpur. Perhaps the earliest of such gangs in the British regime was led by Khan Shah of village Dharauli, Pargana Azamnagar. He was perhaps shot dead in an encounter with the police. Next came Dhara Singh, Vijai Singh and Puhupi Singh of village Baniadhera in Azamnagar. One was shot dead and the remaining two were perhaps executed. There was another gang of Bhadauria dacoits consisting of Mulaim Singh, Balbhadra Singh and Het Singh led by Aman Singh. In an encounter with the police one was drowned in the river and another was killed. One more died in jail and only Aman Singh survived who gave up the life of lawlessness. During the time of the famous district magistrate Mr. W. B. Cotton, Sone Lal of village Kasela near Dhumari attained notoriety. He is credited with the feat of having snatched the rifle of Mr. Cotton in Katri, where he had gone for hunting. Sone Lal perhaps died in prison. The last gang which was liquidated only a few years back was led by Girand Singh, a Rajput of village Garhia near Aliganj and an Ahir named Bire. Girand who was a little considerate was shot dead by a Brahmin zamindar of Shahjahanpur district, and Bire, who was more of a butcher and a marauder than a dacoit was injured in an encounter with the police, caught and finally hanged.

The people of the Tarai still continue to be rough, quarrelsome and intolerant. In any social gathering almost every person young or old will be found carrying a strong bamboo stick at least a cubit higher than his head. Often they kill people at a very slight provocation and, therefore, the number of cases of murder coming to the district court at Etah is said to be the highest from tahsil Aliganj. As against the people of the Tarai the people of Pahara are far more cultured, peaceful and advanced. In reality it is the extremely adverse environment of the Tarai which makes people look like uncivilized savages at times. Perhaps the disappearance of Katris and the development of some roads might change the character and outlook of the people in future.

A brief description of the changes in the dress, diet and education system of the people during the course of the last hundred years may be attempted. Men's dress about a century back consisted of a Mirzai, Dhoti and Mundasa (Pagari) all of hand-spun and hand-woven cloth. For making the dhoti broad, two pieces were stitched together. Women's wear consisted of a Lehanga and a Dopatta. Lehanga was made of hand-spun and hand-woven cloth called Sukambar and dopatta was made of a cloth, hand-spun and hand-woven, called adhotara. They were coloured with local vegetable dyes. For a lenhaga 3 quarters of a seer (local) and for a dopatta one and a half quarters of seer (local) of yarn was usually required. Elders spoke of a fine variety of cloth known as Bafta meant for the rich and not within the means of ordinary common people. With the advent of the foreign mill cloth men's dress was changed to a Kurta (with a loose body and loose sleeves), dhoti and mundasa. They were all mill-made; women's wear changed to a lehanga of a hand-loom, mill-yarn woven, brighty coloured, cheque design cloth called Battu. It is said that 700 julaha families at Ganj Dundwara were engaged in the weaving of this cloth. Dopatta was made from mill-made coloured markeen cloth. Since the end of the first world war men's dress has changed slightly. It now consists of shirt, dhoti and a cap usually all made of fine cloth manufactured by Indian mills. Educated young men use pyjama, in place of dhoti. Only college educated young men use shirt and pants. Women's wear has undergone a marvellous change. Lehanga and dopatta have both disappeared; their place has now been taken by Ahmedabad style cotton saris. This description is of the changes in the dress of the common people.

The food of the people has been simple since perhaps times immemorial. It consists of chapatis of cereals, cooked pulses and vegetables usually with a certain amount of dairy produce like milk, curd, sour milk and ghee. The food remains the same with the only change that the quantity of dairy produce has decreased. About a hundred years back dairy produce was mainly for home consumption. Now most if it is for sale. The peasant himself uses sour milk and hydrogenated oil and usually sells milk and ghee. In better days chapatis may be made of wheat flour; in bad days they might be made of Bejhar flour. Meat, eggs etc., are not a part of the diet of the ordinary people.

The food served on festive occasions like marriage dinners or religious celebrations has, however, undergone considerable changes. About a hundred years back the community dinner on festive occasions consisted of boiled rice, currie of gram flour and ghee. From about the end of the 19th century such dinners usually began to consist of puries of wheat flour cooked in ghee, cooked vegetables, curd and sugar. This became the most common and standard dinner. Since the advent of high prices, sweets like laddus have become very common as an item in the menu of the dinner.

In the sphere of education about a hundred years back there was almost no arrangement from the side of the state. Some families engaged themselves in the preparation of hand-copied books. Their members also ran schools in the neighbouring big villages for a few pupils who cared to read. Such a Nai-Pande family was at Patiali. Its members kept schools at villages like Hatorha Ban. With the establishment of British rule, some primary schools were opened in big villages. One Hindi-Urdu middle school was provided in every tahsil town, and one English high school was opened at the district head-quarters. But now under the national government the primary schools have been opened in all moderate-sized villages; there are a number of high schools; inter colleges are situated at Kaimganj, Rampur, Patiali, Sirhpura, and Kasganj, all along the railway line between Kaimganj and Kasganj and finally there is a degree college at Ganj Dundwara. These higher institutions are so located that they serve both the Tarai and the Pahara equally well. People of the region now seem to be advancing on the road to progress. The Community Development scheme is likely to be introduced and it is hoped that the people of the region will succeed in achieving a higher standard of living in course of time.

WORRIES IN URBAN LIFE

D. S. CHAUHAN, D. Sc.
Institute of Social Sciences, Agra University, Agra.

I. OBJECTIVE OF THE STUDY

This study aimed at a quantitative estimation and expression of the nature and the extent of worries in daily life (a phenomenon of common observation and experience). It was conducted in the city of Agra and hence the results relate to urban life.

II. DEFINITION

Worry was defined as a quality or state of mind characterised as uneasy, troubled, disturbed, distressed or harassed. Such a state of mind arose out of frest and cares of life and undue concern about something. Occurrence of this phenomenon implies two elements: (i) time element indicating three points: past, present and future, and (ii) situational or objective element indicating two features specific and uncertain, or fixed and floating. In regard to the former all the three (*i. e.*, situations or events or behaviour occurring in the past or at present or are likely to occur in future, which gave rise to some worry at the time of investigation) were taken into account. But in regard to the latter only the first were taken into consideration, *i. e.*, the harassing anxieties arising out of specific situations were studied, and those over uncertain situations were left out as vague apprehensions. Further, worry was distinguished from phobia (which are exaggerations of emotional experiences), and the latter were excluded. But anxiety hysteria, *i. e.*, psychological symbols or conscious manifestations of anxieties over specific objects or situations were included. On the whole it is taken as a negative value, a pathological problem, and not as a normal psychic phenomenon.

III. SAMPLING DESIGN AND METHOD OF INVESTIGATION

The study was conducted on a sample basis. It covered 2599 cases. The selection of the cases was made through stratified random sampling method. The basic unit in sampling was the household, and the sampling fraction was about 6%. In the selected households the heads of households were interviewed to which the present study relates; and they form the basic units of enquiry. The sample fraction comes to about 0·7% of the total city population. The population was classified into three broad sections: permanent city population, inmigrants and refugees. This study relates to the permanent city population (*i. e.*, who have been residing in the city for at least one generation or for longer time; 25 years being taken as a rough measure of the period for one generation). The method of enquiry was personal interview through unstructured questionnaire, for which special care was taken and very detailed instructions were given. But in order to avoid detailed noting a codified nine point schedule was used to code the answers on the spot, immediately after the interview. Out of the total number of 2599 cases approached there were 67 non-responses (*i. e.*, refusals, indefinite and biased or otherwise unreliable answers). There were 2532 successfully completed cases, the degree of successful completion being 97·4%. The results presented here relate to 2532 cases.

IV. METHODS OF MEASUREMENT AND ANALYSIS

In the study of a subjective phenomenon of which multiplicity was a common characteristic there were two main problems, one of identification and the other of quantification. An attempt was made to overcome such difficulties in the following manner. The most harassing or pressing worry was identified during the interview; and it has been termed as immediate worry. It was noted in one of the nine types or categories. These categories were formed with reference to the location of cause in specific aspects of daily activities. Inspite of the attempt to spot the most pressing worry in a few cases of multiplicity ranking had to be done in the order of intensity. The extent of worries has been calculated in terms of % of worried population (population reporting some worry or the other) to the total population which responded. The extent of individual or specific worries has likewise been calculated in the same manner (*i. e.*, proportion of population reporting specific worry to total population). The problem of multiplicity has been solved through the calculation of a weighted index. The system of weightage in regard to ranking was 1 for the first, 0.5 for the second, 0.33 for the third, and 0.25 for the fourth. (There was no further ranking reported beyond fourth). The relative incidence of specific types of worries has been calculated in terms of proportion reporting individual or specific worry to total number reporting all types of worries. The analysis of the extent of worries (both specific and total) and of the relative incidence of different types of worries has been made in relation to age, economic condition and social status. According to age the population has been divided under six groups: 15-25 years, 25-35 years, 35-45 years, 45-55 years, 55-65 years, and above 65 years. According to economic condition it has been classified into six classes, on the basis of normal monthly household income: A upto Rs. 30, B Rs. 31-60, C Rs. 61-100, D Rs. 101-200, E Rs. 201-500, and F above Rs. 500. And according to social status it has been classified into five groups: Upper Hindu castes, Middle Hindu castes, Lower Hindu castes, Muslims and Others (Christians).

V. The Results

Extent and the relative incidence of immediate worries:

The following table shows the number of persons reporting specific worries (immediate worries relating to definite factors or causes), their ranking, and the weighted frequency calculated according to the method stated previously.

Table 1 (a)

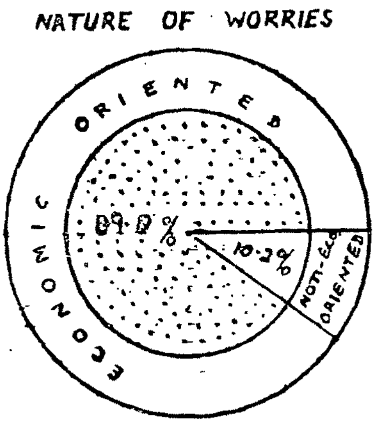
Worries relating to	Order of experience (Ranking)					Weighted frequency		
	1st	2nd	3rd	4th	Total	No.	% to Total	
Inadequate Income	475	202	20	...	697	583	21.9	89.8
Employment	508	120	12	...	640	572	21.5	
Other Eco. matters	1150	144	6	...	1300	1224	64.4	
Health	53	37	12	7	109	78	2.9	10.2
Educational matters	39	34	10	4	87	60	2.3	
Social Problems	20	11	4	1	36	29	1.1	
Moral problems	9	5	2	...	16	12	0.4	
Religious matter	3	4	1	...	8	7	0.3	
Others	55	56	6	...	117	86	3.2	
Total	2312	613	73	12	3010	2651	100.0	
Persons reporting no worry (free from worry)	...	...	No. %	...	206 8.1	...	...	

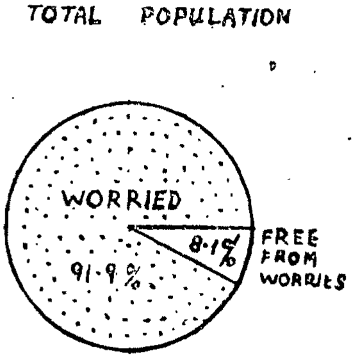
The proportion of persons reporting specific worries to the total population (2532) was found to be as follows :—

Table 1 (b)

Worries relating to	Order of exeprience					Weighted index
	1st	2nd	3rd	4th	Total	
Inadequate Income	18.8	7.9	0.8	...	27.5	22.0
Employment	20.0	4.8	0.5	...	25.3	21.6
Other Eco. matters	45.4	5.7	0.2	...	51.3	46.1
Health	2.1	1.4	0.5	0.3	4.3	2.9
Educational matters	1.5	1.4	0.4	0.1	3.4	2.2
Social problems	0.8	0.4	0.2	Neg.	1.4	1.3
Moral problems	0.4	0.2	0.1	...	0.7	0.5
Religious matters	0.1	0.2	Neg.	...	0.3	0.2
Others	2.2	2.2	0.2	...	4.6	3.3

Out of the total population of 2532 persons 206 or 8.1% did not express any harassing anxiety. This is considered to be the proportion of population free from worries. The remaining *91·9% felt worried* and expressed one specific worry or the other. Taking the specific items into consideration (Table 1 (b)





last column) 22% persons felt worried over inadequate income, 21.6% about employment (conditions of employment, under-employment and unemployment), 46.1% were found worried because of other economic matters, 1.3% because of social problems, 0.5% over moral problems, 0.2% over religious matters, and 3.3% expressed other worries. The relative incidence of different worries (expressed in terms of % of individual items of worries to the total number (table 1 (a) last Col.) was as follows: 21.9% were about inadequate income, 21.5% about employment, 46.4% over other economic matters, 2.9% about health, 2.3% about educational problems, 1.1% about social problems, 0.4% about moral problems, 0.3% over religious matters and 3.2% over other things. This brings out a very important conclusion that *to the extent of 89·8% worries were economic oriented, and only 10.2% were non-economic oriented.*

Extent and relative incidence of different worries in different age groups:

The proportion of population reporting some worry or the other and that reporting no immediately harassing worry (*i. e.*, free from worries) in different age groups was found to be as follows :

Table 2

Age groups (yrs.)	Population reporting worries		Population free from worries		Total No.
	No.	%	No.	%	
15–25	190	96.0	8	4.0	198
25–35	559	91.5	52	8.5	611
35–45	632	92.9	48	7.1	680
45–55	528	92.3	44	7.7	572
55–65	289	89.2	35	10.8	324
Above 65	128	87.1	19	12.9	147
Total	2326	91.9	206	8.1	2532

The total number of persons reporting different worries in the different age groups calculated by weighting was as follows:—

Table 3

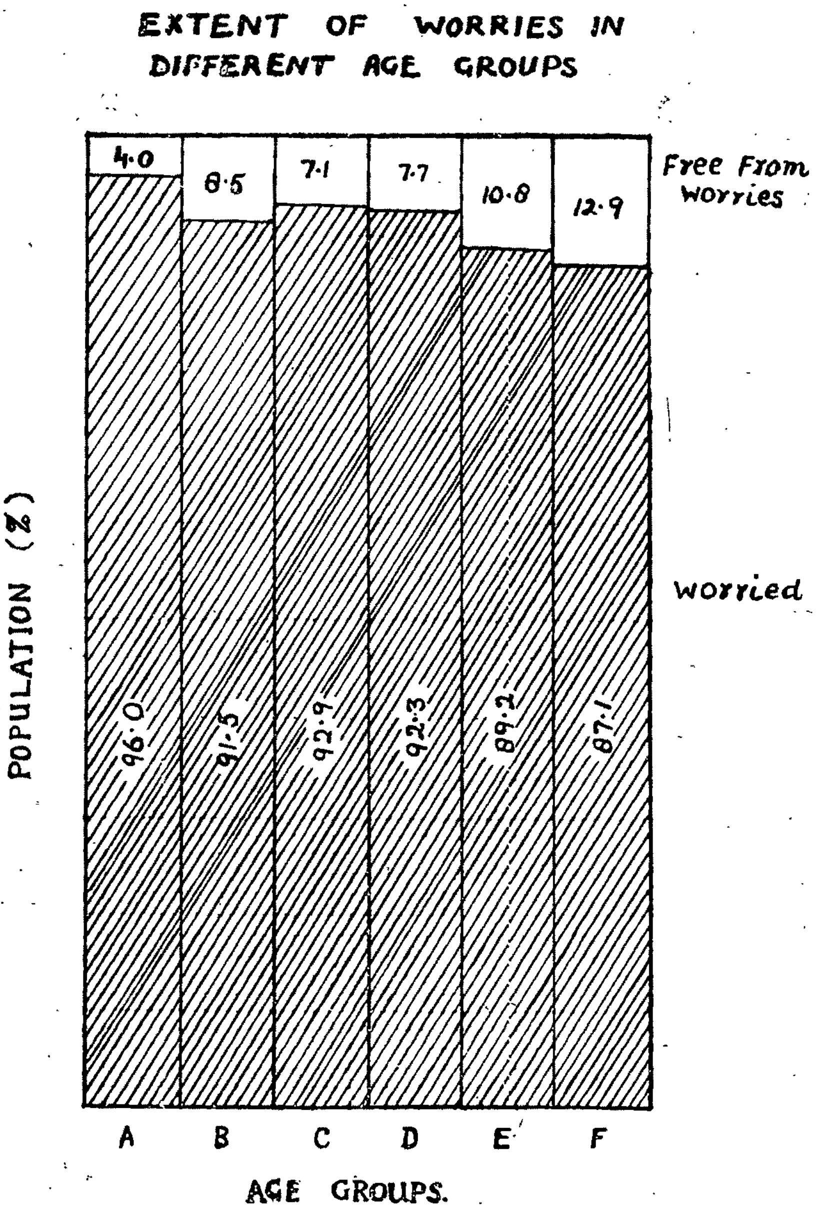
Worries relating to	15–25	25–35	35–45	45–55	55–65	Above 65	Totol
Inadequate income	44	129	194	111	73	32	583
Employment	62	146	166	109	66	23	572
Other Eco. matters	117	286	315	256	163	87	1224
Health	5	12	23	12	17	9	78
Educational matters	5	15	23	8	7	2	60
Social problems	1	2	11	7	4	4	29
Moral problems	...	2	4	4	2	...	12
Religious matters	...	3	1	...	1	2	7
Others	11	26	19	13	11	6	86
Total	245	621	756	520	344	165	2651

The proportion of population expressing different worries (*i. e.*, % population expressing particular worries to total population in the group, calculated on the basis of the weighted frequency) was as follows :—

Table 4

Worries related to	15–25	25–35	35–45	45–55	55–65	Above 65
Inadequate income	22.2	21.3	28.5	19.4	23.1	21.7
Employment	31.3	23.9	24.4	19.0	20.3	15.7
Other Eco. matters	59.1	46.8	46.3	44.7	50.3	59.2
Health	2.5	1.9	3.3	2.1	5.2	6.1
Educational matters	2.5	2.5	3.3	1.1	2.2	1.4
Social problems	0.5	0.3	1.6	1.2	1.2	2.7
Moral problems	...	0.3	0.6	0.7	0.6	...
Religious matters	...	0.5	0.1	...	0.3	1.4
Others	5.5	4.2	2.8	2.3	3.4	4.1

The above three tables present a picture of the extent of worry at different age levels. The results presented in table 2 show that the extent of population which felt worried varied from 87.1% in the oldest age group to 96% in the youngest group, and the % of population free from harassing worries varied from 4% in the age group 15-25 yrs. to 12.9% in the group above 65 years of age. This shows a very high degree or a great extent of worry at all age levels; and secondly, the maximum extent in the youngest group (youths) should be taken as a dangerous signal. An explana-



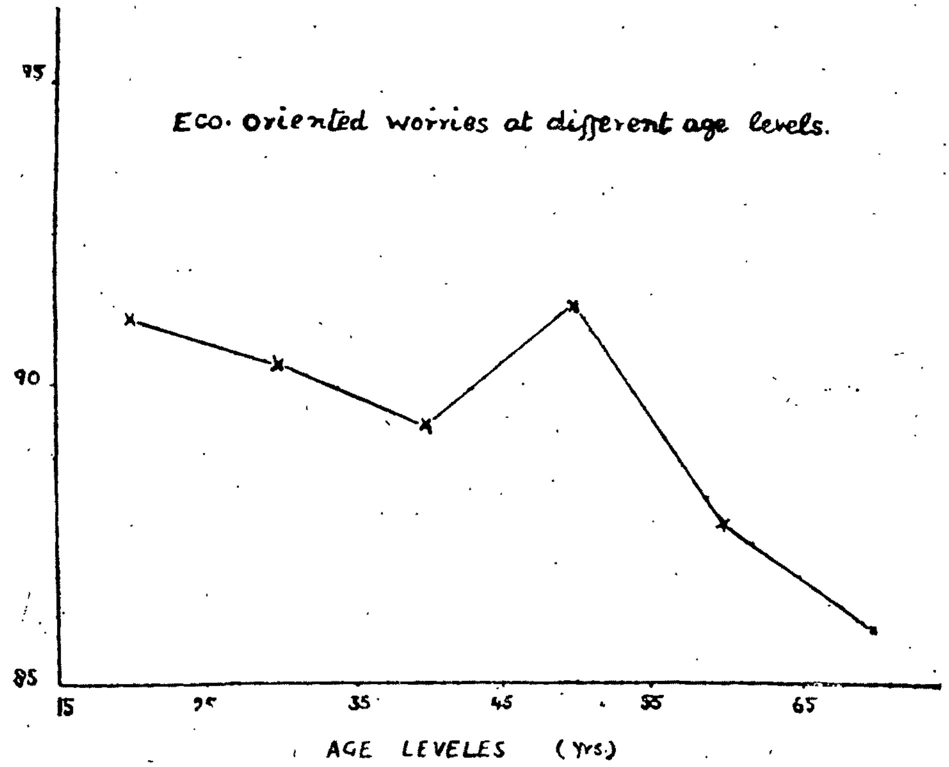
tion of the latter phenomenon is partly found in table 4. Employment and unemployment situation creates maximum worry to this age group. This is primarily because the new entrants to that rank are in this group; they experience a long period of waiting and considerable difficulties prior to employment. The % of population under this item was least in the highest age group. They had relatively greater amount of worries relating to health, since the percentage under this item was maximum in the age group above 65 yrs., the next being the group 55-65 years.

The relative incidence of specific worries (or the relative importance of different causes of worries) in different age groups was found to be as follows:—

Table 5

Worries related to	15–25	25–35	35–45	45–55	55–65	Above 65
Inadequate income	18.0	20.8	25.7	21.3	21.2	19.4
Employment	25.3	23.5	21.9	20.9	19.2	13.9
Other Eco. matters	47.8	46.1	41.7	49.2	47.4	52.8
Total Eco. oriented	91.1	90.4	89.3	91.4	87.8	86.1
Health	2.0	1.9	3.0	2.3	4.9	5.5
Educational matters	2.0	2.4	3.0	1.6	2.0	1.2
Social problems	0.4	0.3	1.5	1.4	1.2	2.4
Moral problems	...	0.3	0.6	0.8	0.6	...
Religious matters	...	0.5	0.1	...	0.3	1.2
Others	4.5	4.2	2.5	2.5	3.2	3.6
Total non-economic oriented	8.9	9.6	10.7	8.6	12.2	13.9
Total	100	100	100	100	100	100

The proportion of economic oriented worries was 91.1% in the group 15–25 yrs., 90.4% in 25–35 yrs., 89.3% in 35–45 yrs., 91.4% in 45–55 yrs., 87.8% in 55-65 yrs., and 86.1% in the oldest age group of above 65 yrs. On the other hand the proportion of non-economic oriented worries was 8.9% in the group 15–25 years, 9.6% in 25–35 yrs., 10.7% in 35–45 years, 8.6% in 45–55 yrs., 12.2% in 55–65 yrs., and 13.9% in the oldest age group of above 65 years. Other interesting conclusions drawn from the above table are: (i) the relative incidence of item number 2, *i. e.*, the extent of worry caused by employment and unemployment situation was maximum in the youngest age group (15–25), and it gradually declined to the minimum in the oldest age group (above 65 years). (ii) Inadequacy of income was experienced most by the age group 35–45. But *the burden of total economic responsibilities (exhibiting itself as a cause of worries) was found to be maximum in the age group 45–55 years.* After this stage the curve is on a decline since the economic burdens are shared by other relatively younger members of the family; and it is least in the last age group when man usually retires from active and earning activity, and becomes dependent on other members of the family. (iii) The percentage under the 3rd item 'other economic worries' was



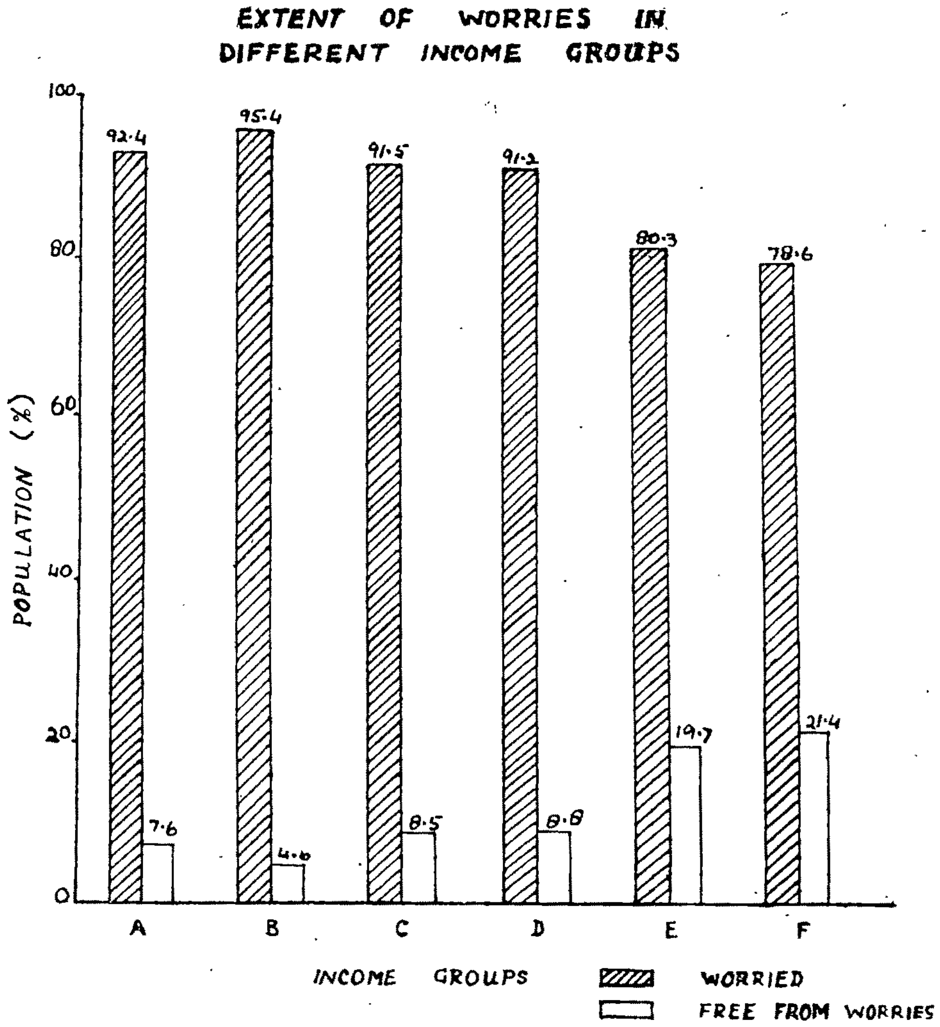
maximum (though the difference was not very much) in the last age group of above 65 years. This shows that retirement from active life and from earning capacity does not relieve man from economic worries. A sense of responsibility towards other members of the family arising out of the system of joint family, and a psychological characteristic of preservation and storage when life is at the fag end, which normally exhibits itself in the old persons' behaviour towards (or greed for) accumulation and stabilizing things (providing permanent basis) for the posterity seem to be responsible for this phenomenon. (iv) Health causes significant worries after 55 years of age, after which special care has to be taken, and for which provision has to be made by any agency public or private depending upon the pattern of social and economic system. (v) Moral and religious matters do not worry the youngest group at all. Perhaps they never think in these terms, and these things seem to have ceased to be of concern in daily life. Apart from the youngest group in all other age groups their role seems to have become very insignificant.

Extent and relative incidence of different worries in different economic groups:

The proportion of population reporting some worry or the other and that reporting no immediately harassing worry (*i. e.*, free from worries) in different economic groups was found to be as follows:—

Table 6

Economic groups (Monthly household income)	Population reporting worries		Population free from worries		Total No.
	No.	%	No.	%	
A. (Upto Rs. 30)	184	92.4	15	7.6	199
B. (31–60)	797	95.4	39	4.6	836
C. (61–100)	722	91.5	67	8.5	789
D. (101–200)	458	91.2	44	8.8	502
E. (201–500)	143	80.3	35	19.7	178
F. (Above 500)	22	78.6	6	21.4	28
Total	2326	91.9	206	8.1	2532



The number of persons reporting different worries in different economic groups calculated by weighting was as follows:—

Table 7

(Weighted frequency)

Worries related to	A	B	C	D	E	F	Total
Inadequate income	44	230	170	101	32	6	583
Employment	35	226	167	108	31	5	572
Other Eco. matters	172	363	392	225	62	10	1224
Health	9	23	20	12	11	3	78

Table 7 (*Contd.*)

Worries related to	A	B	C	D	E	F	Total
Educational matters	1	10	19	22	8	...	60
Social problems	1	7	8	9	4	...	29
Moral problems	3	3	1	1	4	...	12
Religious matters	1	2	1	2	1	...	7
Others	6	27	24	14	13	2	86
Total	272	891	802	494	166	26	2651

The proportion of population expressing different worries (*i. e.*, % of population reporting specific items of worries to total population in the group) calculated on the basis of the weighted frequency was as follows:—

Table 8

Worries relating to	A	B	C	D	E	F
Inadequate income	22.1	27.5	21.5	20.1	18.0	21.4
Employment	17.6	27.0	21.2	21.5	17.4	17.8
Other eco. matter	86.4	43.4	49.5	44.8	34.8	35.7
Health	4.5	2.8	2.5	2.4	6.2	10.7
Educational matters	0.5	1.2	2.4	4.4	4.5	...
Social problems	0.5	0.8	1.0	1.8	2.2	...
Moral problems	1.5	0.4	0.1	0.2	2.2	...
Religious matters	0.5	0.2	0.1	0.4	0.5	...
Others	3.0	3.2	3.1	2.8	7.3	7.2

The extent of worry (both total and specific worries) in different economic groups (represented by specific income classes) is presented in the above three tables. Table 6 shows that no income class is free from worries, and the class in which the extent is relatively least shows as high a figure as 78.6%. In different classes it varies from 78.6% to 95.4%. On the other hand the % of population free from worries varies from 4.6% to 21·4% in different classes. Taking the extent in different classes a very important fact revealed by these results is *a very high degree of positive correlation between the extent of income (economic condition) and freedom from harassing worries in daily life or a high degree of positive correlation between poverty and extent of worries in daily life.* This fact becomes more obvious if the six economic classes are reduced to 3 broad classes—poor (comprising of the four groups A to D having a monthly household income upto Rs 250), middle (E group having a monthly household income between Rs. 251–500), and the upper (group F with a monthly household income above Rs. 500) income classes. The % of population reporting worries comes to 92.9% in the poor or lower class, 80.3% in the middle class, and 78.6% in the upper income class; and the proportion of the population free from worries comes to 9.1% in the poor or lower, 19.7% in the middle and 21.4% in the upper income class.

The relative incidence of specific worries (or the relative role of different factors causing worries) in different income classes worked out to be as follows:—

Table 9

Worries relating to	A	B	C	D	E	F
Inadequate income	16.2	25.9	21.2	20.5	19.3	23.1
Employment	12.8	25.4	20.8	21.8	18.7	19.2
Other eco. matters	63.2	40.7	48.8	45.6	37.4	38.4
Total eco. oriented	92.2	92.0	90.8	87.9	75.4	80.7
Health	3.3	2.6	2.5	2.4	6.7	11.6
Educational matters	0.4	1.1	2.4	4.5	4.8	...
Social problems	0.4	0.8	1.0	1.8	2.4	...
Moral problems	1.1	0.3	0.1	0.2	2.4	...
Religious Matters	0.4	0.2	0.1	0.4	0.6	...
Others	2.2	3.0	3.1	2.8	7.7	7.7
Total non-economic oriented	7.8	8.0	9.2	12.1	24.6	19.3
Total	100.0	100.0	100.0	100.0	100.0	100.0

The proportion of economic oriented worries was found to be 92.2% in the lowest income group A (with a monthly household income upto

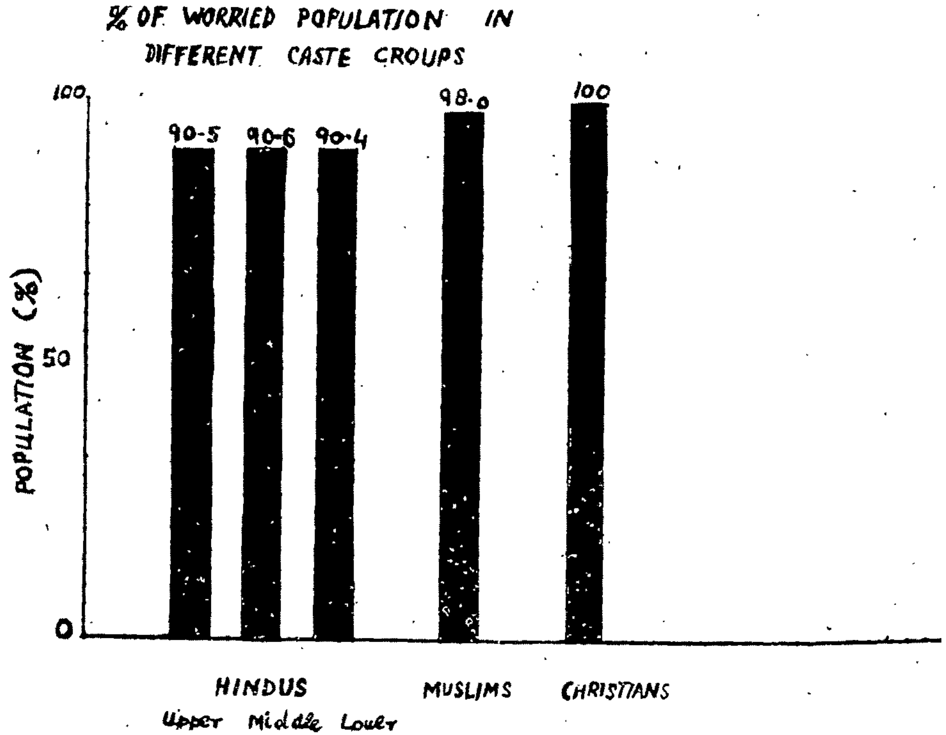
Rs. 30), 92% in the next group B (with an income of Rs. 31–60 p. m.), 90.8% in group C (with an income between Rs. 61–100), 87·9% in group D (having an income between Rs. 101–200), 75·4% in group E (with an income between Rs. 201–500) and 60·7% in last group consisting of persons enjoying a monthly income above Rs. 500). The proportion of non-economic oriented worries came to be 7.8 % in group A, 8% in B, 9.2% in C, 12.1% in D, 24.6% in E and 19.3% in F. This throws light on some social facts. The non-economic oriented worries were found to be maximum in the middle class (represented by income group E). They were found to be relatively more worried in comparision to other classes over present social, moral and religious problems(which seem to be responsible more for the relative differences) arising out of social changes about which the lower and the upper income classes were not affected to that extent, the former because of the greater or more intense struggle against poverty, and the latter because of sheer unmindfulness towards them under materialistic affluence. The latter is more sad since the former is an outcome of compulsive circumstances. However, whatever the cause it needs attention.

Extent and relative incidence of specific worries in different social classes:

The proportion of population reporting some worry or the other and that reporting no immediately harassing worry (*i. e.*, free from worries) in different social (caste) groups was found to be as follows :—

Table 10

Social class	Population reporting worries		Population free from worries		Total
	No.	%	No.	%	
Upper Hindu castes	644	90.5	68	9.5	712
Middle Hindu castes	631	90.6	66	9.4	697
Lower Hindu castes	613	90.4	65	9 6	678
Muslims	420	98.3	7	1.7	427
Others (Christians)	18	100.0	...	...	18
Total	2326	91.9	206	8.1	2532



The number of persons reporting specific worries in different social groups calculated by weighting was as follows:—

Table 11

(Weighted frequency)

Worries relating to	Upper Hindus	Middle Hindus	Lower Hindus	Muslims	Others (Christians)	Total
Inadequate income	164	145	161	109	4	583
Employment	130	138	213	87	4	572
Other eco. matters	313	395	305	203	8	1224
Health	23	27	12	13	3	78
Educational matters	21	18	9	12	...	60
Social problems	5	2	17	5	...	29
Moral problems	5	5	1	1	...	12
Religious matters	2	1	2	2	...	7
Others	21	21	28	14	2	86
Total	684	752	748	446	21	2651

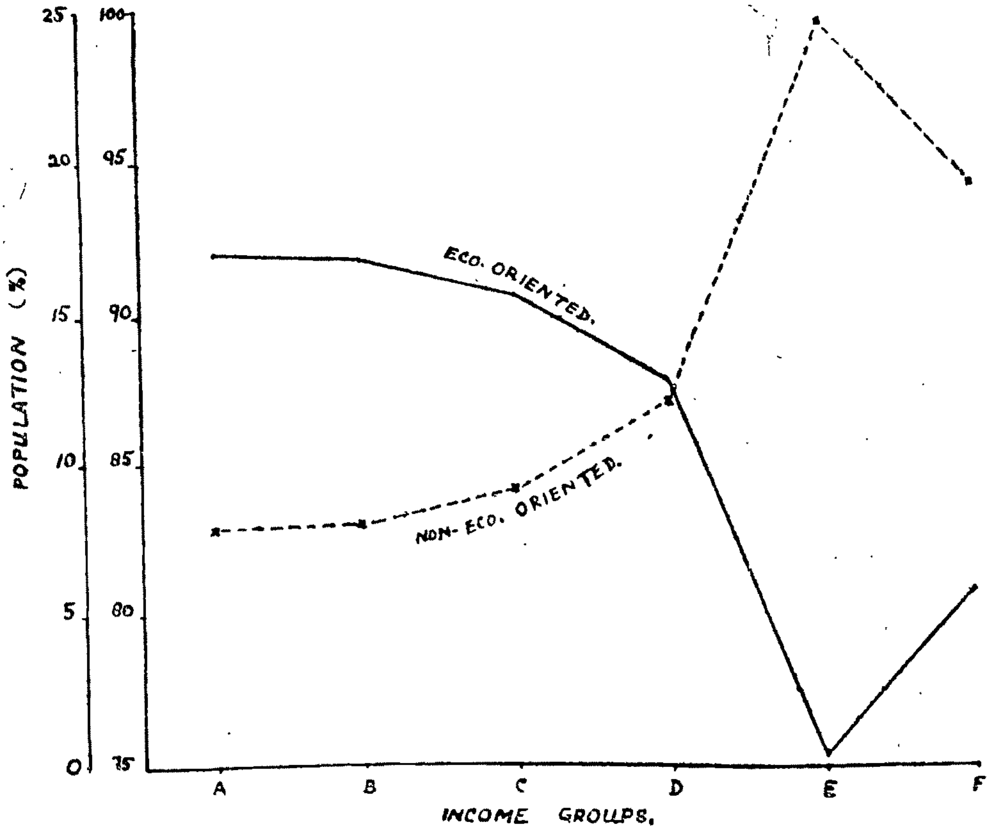
The proportion of population expressing different worries (*i. e.*, % of population reporting specific items to total population in the group, calculated on the basis of weighted frequency) was as follows:—

Table 12 (%)

Worries relating to	Upper Hindus	Middle Hindus	Lower Hindus	Muslims	Others (Christians)
Inadequate income	23.0	20.8	23.7	25.5	19.1
Employment	18.2	19.8	30.0	20.4	19.1
Other eco. matters	44.0	56.7	45.0	47.7	38.1
Health	3.2	3.9	1.6	3.0	14.3
Educational matters	2.9	2.5	1.3	2.8	...
Social problems	0.7	0.3	2.5	1.2	...
Moral problems	0.7	0.7	0.1	0.2	...
Religious matters	0.3	0.1	0.3	0.4	...
Others	2.9	3.0	4.1	3.3	9.5

The proportion of the worried population (because of specific items and on the whole) is presented in the above three tables 10, 11 and 12. Table 10 shows that the % of population feeling worried was 90.5% in upper Hindu castes, 90.6% in middle Hindu castes, 90.4% in lower Hindu castes, 98.3% in Muslims and 100% in Christians. The % of population free from worries was 9.5% in upper Hindu castes, 9.4% in middle Hindu castes, 9.6% in lower Hindu castes, 1.7% in Muslims and nil in Christians. Thus amongst Hindus as a class *social status was not found to be related to or a factor causing worries*. However, taking Hindus, Muslims and Christians as three separate social groups some differences were noticeable. The extent of worried population was found to be maximum in Christians (100%); amongst the Muslims it was almost as high as that in Christians (98.3); and amongst Hindus also though it was relatively least it was very high (about 90%). Other significant results revealed in the above analysis (Table 12) are that the maximum extent of worry caused by inadequate income was found in Muslims, that caused by employment and unemployment situation was in lower Hindu castes, that caused by other economic matters was in middle Hindu castes, and those caused by problems relating to health were amongst Christians.

ECO. & NON-ECO. ORIENTED WORRIES IN DIFFERENT INCOME GROUPS



The relative incidence of specific worries (or the relative role of different factors causing worries) in different social groups was as follows:—

Table 13

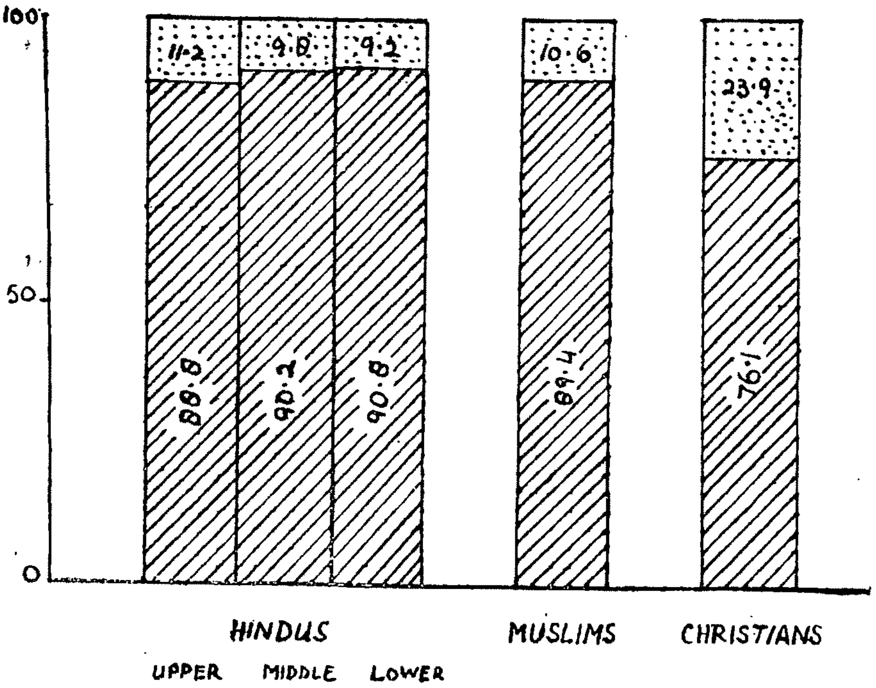
(% to total)

Worries relating to	Upper Hindus	Middle Hindus	Lower Hindus	Muslims	Others (Christians)
Inadequate income	24.0	19.3	21.5	24.4	19.0
Employment	19.0	18.4	28.5	19.5	19.0
Other eco. matters	45.8	52.5	40.8	45.5	38.1
Total eco oriented	88.8	90.2	90.8	89.4	76.1

Table 13 (*Contd.*) (% to total)

Worries relating to	Upper Hindus	Middle Hindus	Lower Hindus	Muslims	Others Christians)
Health	3.3	3·6	1.6	2.9	14.3
Educational matters	3.1	2.4	1.2	2.7	...
Social problems	0.7	0.3	2.3	1.1	...
Moral problems	0.7	0.6	0.1	0.2	...
Religious matters	0.3	0.1	0·3	0.5	...
Others	3.1	2.8	3.7	3.2	9.6
Total non-economic oriented	11.2	9.8	9.2	10.6	23.9
Total	100.0	100.0	100.0	100.0	100.0

ECO. & NON-ECO ORIENTED WORRIES IN DIFFERNT CASTE GROUPS



The proportion of economic oriented worries was 88.8% in upper Hindu castes, 90.2% in middle Hindu castes, 90.8% in lower Hindu castes, 89.4% in Muslims and 76.1% in Christians. And the proportion of non-economic oriented worries came to be 11.2% in upper Hindu castes, 9.8% in middle Hindu castes, 9.2% in lower Hindu castes, 10.6% in Muslims and 23.9% in Christians. There was no statistically significant difference in the case of first four social groups. However, amongst Christians the proportion of non-economic oriented worries was twice as much (and quite high in absolute terms) as in other communities, and in this case worries relating to health figured very prominently. Because of higher % under non-economic oriented worries the % under economic oriented worries came to be least in comparision to that under other four social groups. This should not be taken to mean the best relative economic position (or the highest income) amongst them. Amongst the three groups of Hindu castes (when taken separately for comparision) though the difference is very slight, the % of economic oriented worries being 88.8, 90.2 and 90.8 seem to comfirm a social fact regarding the general coincidence of social and economic values in Hindu society. But the broad conclusion that the social status (caste position) of an individual is not at all a factor causing worry or in any way related to the extent of his worry is quite obvious from the analysis in this section.

VI. CONCLUSIONS

The important conclusions emerging from this study are: (i) 92% of the total population was worried and only 8% was found to be free from worries in daily life. (ii) By far the major proportion of worries (90%) was economic oriented, and only 10% were caused by non-economic factors. (iii) Youths (15-25 years of age) were found to be worried most (in comparision to other age groups). (iv) In the life of an individual the burden of economic responsibility was found to be maximum between 45-55 years of normal life. (v) Moral and religious matters seem to have very insignificant role in urban life at present, and the youth did not seem to be concerned at all about them. (vi) There was a very high degree of positive correlation between poverty and worries or between economic condition and freedom from worries. And (vii) social status of an individual (position in caste hierarchy) was not a factor causing worries.

VII. COMMENTS

Taking worries as a symptom in daily life such a great extent of it (as shown by the results of the present study) in all classes and at all age levels, *i. e.*, as a common[1] phenomenon, is really a matter of grave concern.[2] Firstly, it shows the existence of certain economic, sociological and psychological situations (to which such a state of mind is a reaction) which are pathological situations in which social norms and values are in danger. They need careful attention, and require solution. Secondly, such a frame of mind gives rise to emotional imbalance, develops sharp reations, and creates a high degree of mass dissatisfaction and frustration. These things provide a potential for the development of reactionary tendencies; and they bring-about a psychological preparedness for the acceptance of radical or drastic changes, and sometimes changes only for the sake of changes, or as an escape from the present state of affairs without even being sure of the proposed or newly promised goals.

Thirdly, youth feeling most worried (i. e., the maximum extent of worry being in the age group 15-25 years), is also a dangerous signal.[3] Youth is emotional and blind, and as such is likely to be easily engineered. It can fall victim to slogans, and is likely to go stray. And if unfortunately it loses faith in values and goes the wrong way no persuation and admonition will do, and even no repression can effectively and successfully bring it back to the desired paths and ways. It is, therefore, necessary that before such a stage is reached due care is taken to minimize the causes giving rise to worries and anxieties amongst youths.

Fourthly, since most of the worries are economic oriented a rapid rate of economic growth apparently appears to be an effective solution. And since there is a positive correlation between economic condition and freedom from worry it will definitely prove to be effective to some extent. But the fact that even in the last income class (uppermost income group having a monthly household income of more than Rs. 500) the extent of economic oriented worries is 80% shows that enhancement of income per capita may not achieve freedom from worries to the individual. This is primarily because of too much preoccupation with materialistic life. With materialistic goals in life no amount of economic development can achieve freedom from worries and anxieties. And the problem of worries and anxieties cannot wholly be tackled at economic plane. A more lasting solution will be found through restoration of inner living. The latter can be brought about through strengthening the moral and religious base in life which has at present shrunk too much.

Lastly, this phenomenon speaks of the nature of environment in which man finds himself today. Though economic planning in our country is strengthening the economic base it is not able to check the erosion of human values and shrinkage in the real human capital, and as a result of it happiness and peace in life elude economic development. It, therefore, calls for an urgent and due attention towards restoration of inner life of man along with his rising economic standard. And it is wished that in our planning efforts instead of concentrating too much attention on technological aspects and economic goals due attention will be paid to these things also.

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1. Worries are not characteristic of urban life only. In rural life too they will probably be found almost to the same extent.

2 & 3. The term 'grave concern' and 'dangerous signals' are being used with special reference to individual happiness, social stability and the working of the political system in the country. In the successful working of the democratic system the circumstances revealed by this study are likely to create immense difficulties. They can prove very helpful to any and every opposition in over throwing the party in power. Besides, violent and drastic changes involve huge social costs. Considered in terms of psychology a worried mind indicates negation of internal happiness and peace. And in terms of its sociological implications it endangers social stability and values.

Worry cannot completely be eliminated; and as a psychological phenomenon (as usually understood) a certain degree of it is not considered to be a pathological problem. But beyond a certain stage (when the normal tolerance quotient is crossed) it presents a negative value, and needs attention.

A GENERAL SURVEY OF LABOUR CONDITIONS IN INDIA'S BIRI INDUSTRY

PRAKASH CHAND MAHESHWARI,
Research Scholar, St. John's College, Agra.

Books and Research work in the field of labour problems and labour relations have come out from the press and universities in abundance during recent years. Bewilderingly rapid economic and social changes have taken place since the end of the World War II and specially during the last decade. The role of Government in economic life has changed in character and assumed enlarged proportions. Developments in, and refinements of theoretical analysis have, in this interval, been numerous and substantial. The consequence has been the production of texts and treatises that have enriched the study of problems of labour. But it is really surprising and shocking to see that there are still unheaded millions who have been for a long time eking out their humble living with hard manual labour under the most trying and uncongenial conditions and atmosphere in Bidi Industry which is one of the biggest cottage and unregulated industry of India.

Nothing substantial has so far been done either by the Government or by the employer to improve their lot. The first official investigation conducted about Bidi Industry was under the Chairmanship of Sri K. D. Guha, Director of Industries, C. P. and Berar to investigate complaints in regard to the application of the Unregulated Factories Act and Payment of Wages Act to Bidi and lac factories in C. P. and Berar. Another Committee appointed to investigate into the Labour Conditions in factory employment in India in 1943 under the chairmanship of Sri D. V. Rege, made certain observations regarding the Bidi Industry and labour employed. To meet the shortage of agricultural labour, created mainly by the withdrawal of labour from agriculture to Bidi and other lucrative non-essential industries, the Government of C. P. and Berar in 1946, under the chairmanship of Sri S. N. Agrawal, appointed Bidi Labour Readjustment Committee.

The above committees have concerned themselves only with a few specified questions connected with labour conditions, but the full structural conditions of this industry and its place in the cottage industries has not been assessed so far. The thesis which I am now engaged in preparing on the subject of 'Conditions of labour in Biri Industry of Central India' is an attempt towards studying more intensively the problems of life and work of the vast numbers of workers engaged in the industry in central India.

Recently I undertook a tour of a number of important centres of the industry and completed a Pilot survey of the conditions of labour engaged in it. In this article I am indicating some of the things which have strucked me as being of some significance.

Bidi Industry is a labour intensive industry where output depends solely on the number of labourers employed. If a manufacturer wants a greater output he has to employ a larger number of workers, or take the help of 'sattedar' or has to open branches as it is difficult to supervise too large number of workers, under one management. Settedar are generally contractors who obtain raw material from the manufacturers on contract and get biris prepared under their own supervision and management. There are very few firms where workers assemble together to make biris, otherwise in most cases the workers obtain daily or weekly quota of the raw material from manufacturers, their branches or the Sattedars and get their wages on handing over the product. Thereafter the second stage of the process of manufacture begins in the factory. It consists of warming of Bidies to give taste, wrapping, labelling and packing.

In fact "Gharkhata" (work at home specially by women) is a peculiar feature of the bidi Industry. The existence of Gharkhata makes it difficult to regulate employment of women and children and working conditions. But on the other hand a worker does the work in his spare time at his own house with his family members. He is free from the unwholesome atmosphere and environment of the factory and ill treatment of the management and he is fully responsible for his own work.

There are no cooperative concerns in this industry. The firms of the Sattedars are generally proprietory concerns. The bigger units in the manufacturer's group are generally partnership firms while the smaller units are generally single proprietory concerns.

No motive power is being employed in this industry so far, as all the processes in this industry are performed by hand. A few years back when a bidi machine was invented, the government discouraged its use by imposing an extra duty of Rs. 3/- per 1000 machine-made bidis mainly to give protection to an important cottage industry (bidi manufacturing) which employ and give subsistance to millions of people directly and to so many people indirectly. This high rate of duty was levied on the ground that a machine will turn out many times more bidis than a worker can do within the same time and thus would cripple a cottage industry and throw lacs of workers out of employment. It is estimated by Sri C. V. Jasani, Ex-M. P. that by machanisation of this industry the annual saving made by an individual consumer will be about Rs. 1/12/- while it will throw 5,00,000 workers out of employment (Memorandum submitted by him in Parliament in 1952)

Though Bidi Industry is of a perinnial character, giving employment throughout the year, the labourers engaged in this industry is of two types—seasonal and regular. The village population form the seasonal labour. The Madhya Pradesh, which is very prominent in Bidi making is mainly a single crop area and as the agriculturists do not remain busy all the year round in agricultural operations, Bidi making provides them with employment in their idle season when the crops are ready and need only watching until harvest. Bidi making can then be done simultaneously with the watching of their crops in the fields. This industry also provides employment to the infirm and those unsuited to do hard labour in the farms. The agriculturists are generally in shortage of ready cash for their daily requirements. This industry gives them an opportunity to get ready cash by working at home in their spare time.

Agriculture admittedly suffers because of Bidi industry in Madhya Pradesh as cultivators can not find enough labour in villages even at the time of sowing and harvesting. The attraction into a non-essential industry of such vast masses of peasantory at the expense of agriculture is a matter which no intelligent patriot can look upon without grave apprehension and alarm. (similar type of statement was also made by Francis Walker, when heavy immigration into cities threatened American agricultural production).* Really this is a problem which needs proper solution otherwise labour drawn from an essential industry to a non-essential industry can not but affect society adversely.

Child and woman labour is still prevalent on an appreciable scale in this industry. It is difficult to collect statistics of employment owing to the existance of numerous small units scattered in isolated places in different parts of the region. Child labour is employed both in the system of Gharkhata and in the factories. It has been a difficult task to enforce legal provisions in the bidi industry owing to its peculiar character but since the enforcement of the Factories Act 1948, the organisation af Bidi industry has undergone a radical change and made it difficult to enforce the Act. In the industry as organised at present the 'Sattedars (contractors) or the managers of the branch factories do not have to provide work premises for the workers; the workers themselves find the premises for their work. The Sattedar only issues the material to the workers and gets back the finished products from them. It is generally seen from the records of Sattedars and biri producing firms that for every worker whose name is registered, several members of his family and even guests actually work. Thus it is quite difficult to regulate labour conditions in this industry.

Though bidi factories engage a large number of women who bring their children with them, no special arrangement for children is made.

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* Quoted by Paul Sultan in his "Labor Economics"

In most cases it was noticed that women workers give opium to their children so that they should not disturb in their work. Thus the child and women labour require prompt action to improve their conditions.

Not only this, the remuneration which are given to this labour is very low. Inspite of the fact that Minimum Wages Act 1948 was made applicable to this industry, the cost of living index number of the labour engaged in bidi making has not been worked out nor the capacity of the industry to pay measured or calculated. At least I do not find any statistics of any kind that have been gathered. Therefore, it is very difficult to determine the extent of low wages or otherwise.

But in order to determine the capacity of Bidi Industry one must answer the following questions :—

(1) What is the maximum to which the selling rate can be pushed ?

(2) What is the cost of material, establishment, marketing etc. ?

Selling rate is determined by the economic forces at play and the prevailing rates can not be pushed up artificially. It would be wrong to say that the industry can pay more by raising the rates. Selling rate presents an economic balance which can not be disturbed without consequences. If we examine the possibility of increasing the selling rates, we shall have to consider the rates of cheapest cigarettes in the retail market for no consumer would purchase a Bidi if he can get a cigarrette for the same price.

The cost of bidi production is also high. But it can be reduced either by mechanization or by cheap availability of two important raw materials—Tendu leaves and tobacco. The first method is not good as it will throw the labour out of employment. Therefore, second method is the only way to reduce the cost of bidi production. Tendu leaves are abundantly found in all the places where bidi Industry is concentrated. Usually the right of plucking tendu leave is auctioned by the govt. in regular intervals. The blocks of tendu leaves are generally larger and the smaller manufacturer find it difficult to purchase the right of plucking individually. They are, therefore, forced to purchase leaves from bigger manufacturers at high rates. It is, therefore, suggested that the block of tendu leaves should be small enough so that the small manufacturers may also purchase the right of plucking the leaves.

Similarly the cost of tobacco can be reduced if the supply and distribution of tobacco is controlled by some Govt. agency so that the tobacco can be purchased at fair rates as the present middle man's profit would be eliminated.

Another factor which must be considered is the capacity of the consumer to pay. Bidi is a poor man's smoke and in these days of rising prices, it can not be said that the consumer will have capacity to pay more prices.

"Today it is fashionable for the labour economist to conclude that union policy rather than supply and demand determines wage rates. This may in a sense be true, but the establishment of non-competitive rates has repercussions on both the quantity of labour demanded and the quantity supplied. Thus union wage policy does not "disprove" the existance of such forces or suggest their irrelevance any more than flying an airplane disproves the existance of gravity. And it would be an unwise aeronautical engineer (union) who designs his aircraft (wage policy) on the assumption that gravity (market forces) no longer exists or can be safely ignored."[1]

Therefore, in the absence of proper statistics and without taking into account the capacity of the industry to pay, nobody can say to which extent labour is exploited by giving the low amount of wages. Anyhow, their miserable condition convey the idea that they are low paid.

The conditions of work in this industry is very bad and backward, wages are low, hours of work are still long, housing conditions are primitive and facilities of education, recreation and welfare meagre. There are no fixed hours of work. During the time of work there is no regular rest period. Though workers take rest whenever they feel like. The directive principles enunciated in the Constitution, guaranteeing especially the right to work and the right to live, which would protect the individual from the womb to the grave, have yet to be put into effect. Mere enunciation of rights does not help the workers unless they get the economic fruits of political freedom. Workers, for example, must be assured, education, good housing, shorter hours of work, and all other necessities for decent living.

One of the interesting thing about this labour is that the universal principle that the individual in isolation is powerless and unable to defend his interest effectively and that strength lies in unity, association and collective action find its weakest expression in their unionism. The union of bidi workers does not play a prominent role in solving the problems of the labourers. These organisations are very weak and are not doing any welfare work or other activities which are useful to the workers. Anyhow, they fight for wages and other benefits but do not get success as the unions of the manufacturers are more powerful and had adopted collective measures to weaken their organisational strength. It is generally seen that the labour unions give threat of strike whenever their demands are not granted but in the case of this labour the unions of the manufacturers give the same threat to close down their business if they are compelled to give more wages. So many times they have closed their business and made representations if they were asked to give more wages either by the government or by the labourers. And in this way labourers have to surrender themselves. The unions of the workers is not active, not because the workers have no loyalty to their unions but because the prevailing circumstances, lack of alternative employments and other forces that have weakened their activities.

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[1] Paul Sultan's 'Labor Economics', Ch. 2 Page 27.

These are some of the common problems which I noticed in bidi labour otherwise the study of this labour is a wide and haphazard enquiry where labour is very typical and differ in many respect from the labour of other industries.